DOCUMENT RESUME

ED 188 897 SE 031 205

TITLE	CSMP Mathematics for the Upper Primary Grades, Part III, Student Materials: Worksheets: Which Road?: Festival of Problems 1, 2: Fishing for Numbers, Part III: Road Map: 20?: Rollerskating 37.
INSTITUTION	Central Midwestern Regional Educational Lab., St. Ann, Mo.
SPONS AGENCY	National Inst. of Education (DHEW), Washington, D.C.
PUB DATE	79
NOTE	286p.: For related documents, see SE 031 204-210 and ED 175 634-652. Not available in hard copy due to copyright restrictions. Contains colored charts and graphs which may not reproduce well.
EDRS PRICE	MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	Addition: Algorithms: *Drills (Practice): Elementary Education: *Elementary School Mathematics: Geometric Concepts: *Grade 3: Mathematics Curriculum: Mathematics Instruction: Measurement: Multiplication: *Number Concepts: Subtraction: *Worksheets
IDENTIFIERS	*Comprehensive School Mathematics Program

ABSTRACT

These are some of the individual materials needed by students using the Comprehensive School Mathematics Program's Mathematics for the Upper Primary Grades, Part III. The book of "Worksheets" contains materials that are labeled with the same letter and number as the lessons with which they are to be used. The booklets "Festival of Numbers," "Fishing for Numbers," "20?," and "Which Road" provide practice with whole number operations as well as some work with geometric and measurement concepts. "Road Map" provides experience in working with maps. "Rollerskating 37" is a story-workbook which allows students to take a fanciful excursion in the world of numbers that actively involves the student in the acquisition of new mathematical insights. (Author/MK)

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Comprehensive School Mathematics Program
CEMREL, Inc.
Final Experimental Version
3-41607

CSMP Mathematics for the Upper Primary Grades
Part III

SE

Name

Worksheets

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
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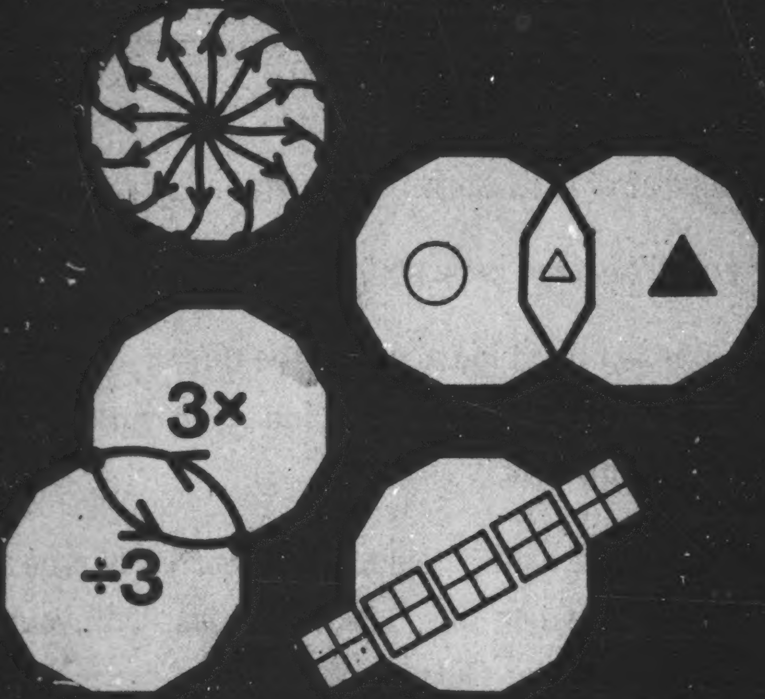

SE 031 205

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WHAT'S IN THIS BOOK?

This book contains all the worksheets you will need for Part III of the CSMP Upper Primary Grades Curriculum. Worksheets are labeled with the same letter and number as the lessons with which they are used. In this book, they are in the following order:

1) All the "N" worksheets: N1* through N36***
2) All the "L" worksheets: L2* through L16****
3) All the "G" worksheets: G1* through G13**
4) All the "W" worksheets: W15 through W18***

HOW DO YOU REMOVE PAGES?

Step 1: Find the worksheet you want.
The number of each worksheet is in the top right corner of the page.

Step 2: Fold and crease the page along the perforation line.

Step 3: With your left hand index finger and thumb, press book firmly down left of the perforation line and along center fold, starting at the top of the book.

Step 4: With your right hand, hold top right corner of page and tear along the perforation line. Follow the tear with your left hand holding down center fold of book.

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Comprehensive School Mathematics Program
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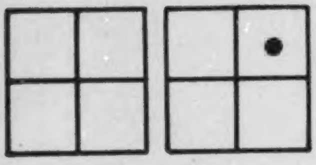
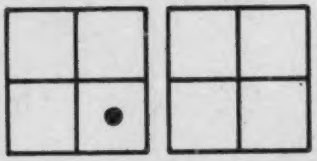
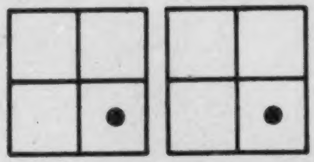
Name

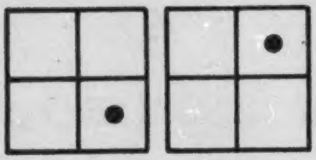
N 1 *

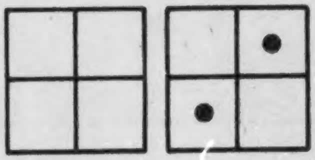
What number is on the Minicomputer?

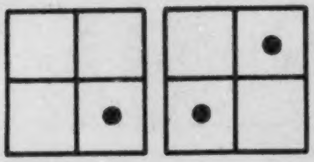


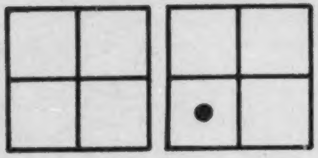


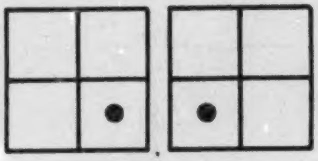


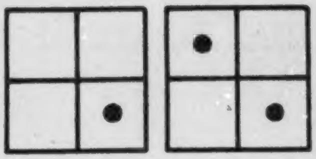








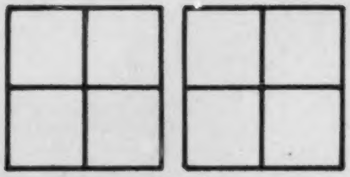




Name ______________________________

N 1 **

Put these numbers on the Minicomputer.



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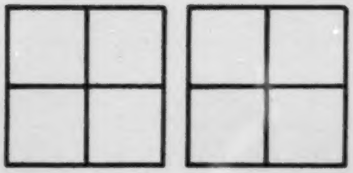

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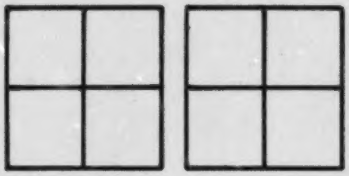

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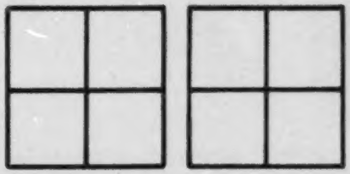

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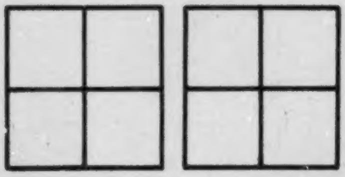

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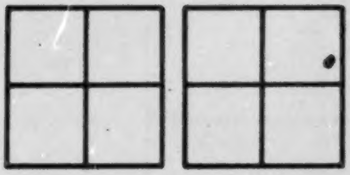

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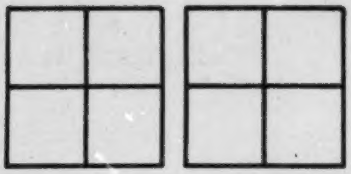

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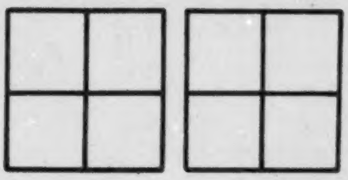

7 5

Name ____________________

N 1 ***

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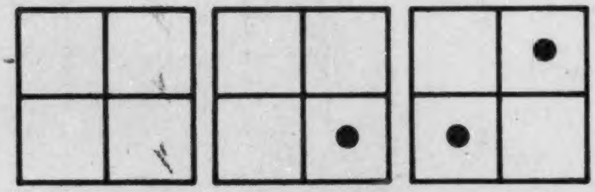

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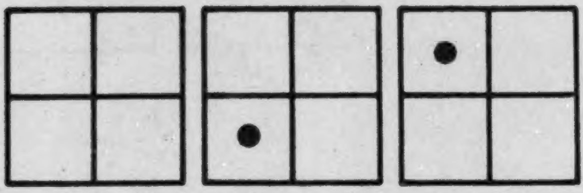

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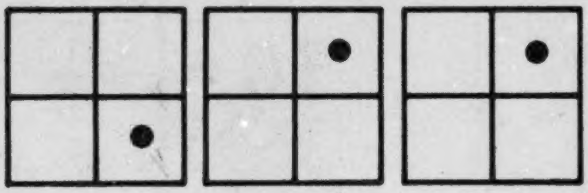

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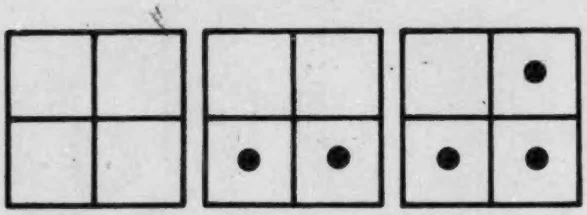

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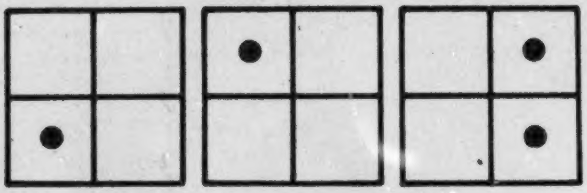

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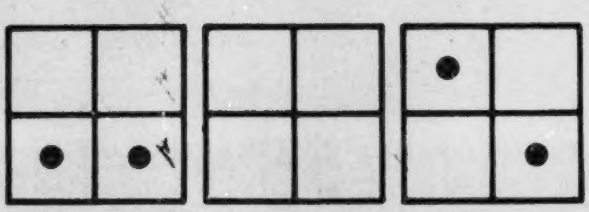

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Name ______________________________

N 1 ****

Put each number on the Minicomputer.

9 =

16 =

7 =

10 =

15 =

12 =

19 =

25 =

30 =

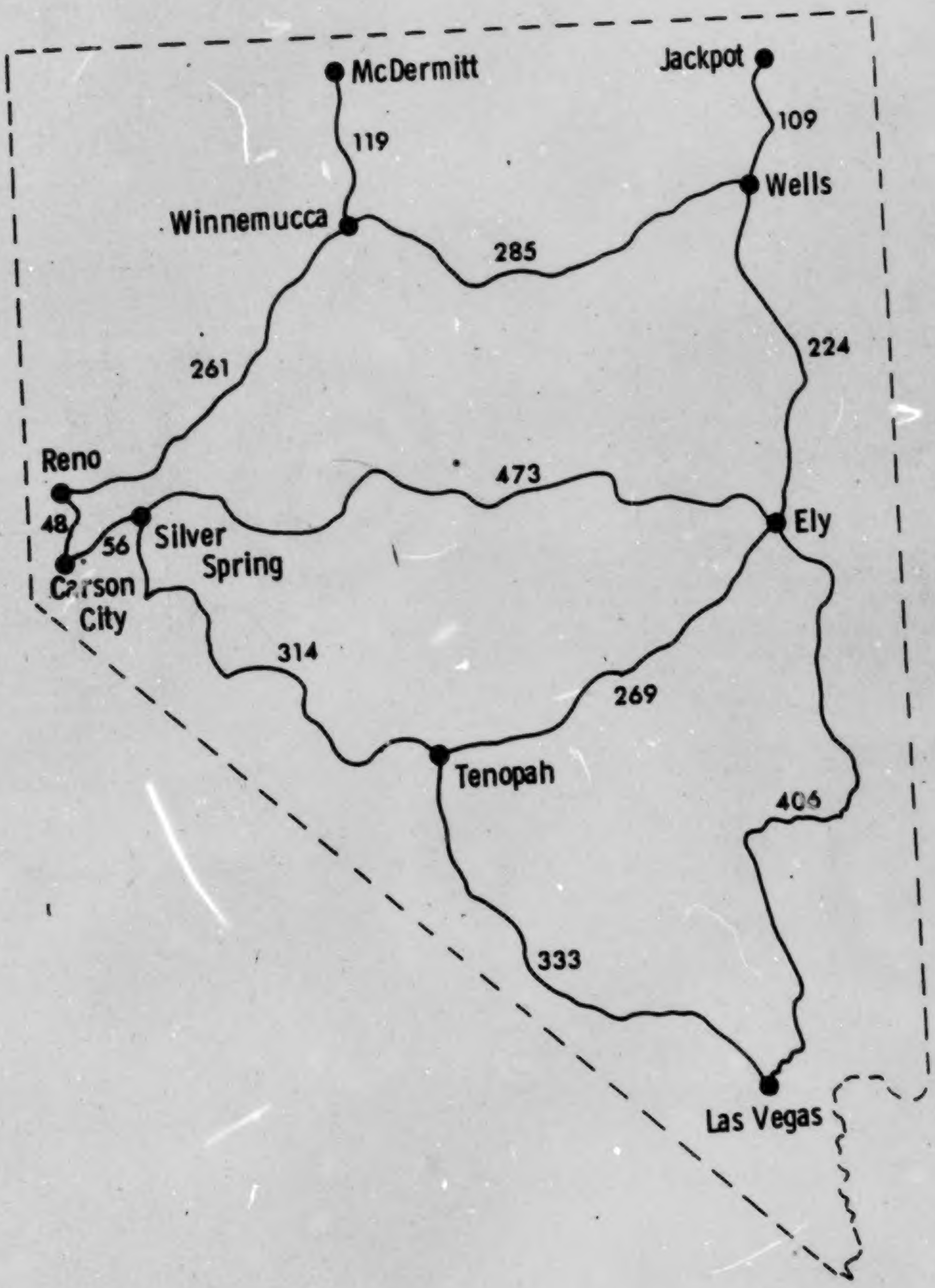
51 =

37 =

55 =

Name ______________________

N 17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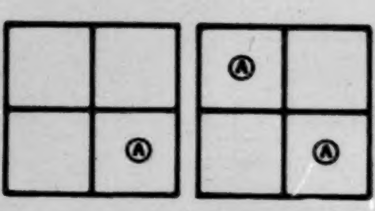
Jackpot
119
109
Wells
Winnemucca
285
224
261
Reno
473
Ely
48
56
Silver Spring
Carson City
314
269
Tenopah
406
333
Las Vegas

Name ______________________

N 21 *

What number is on the Minicomputer?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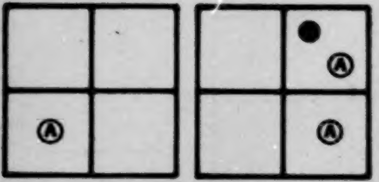
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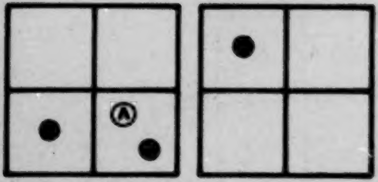
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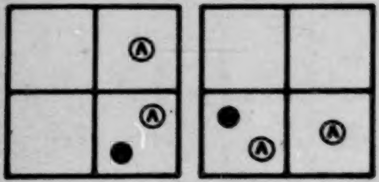
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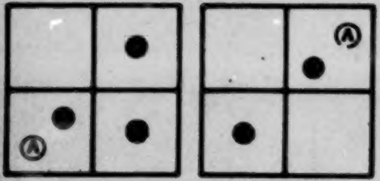
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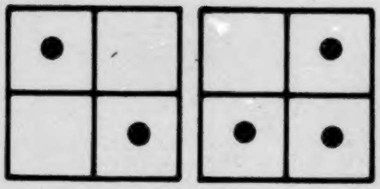
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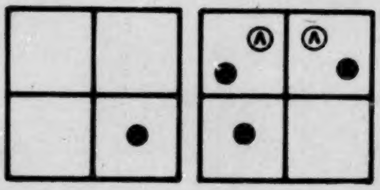
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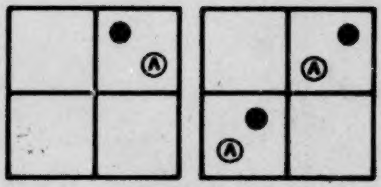
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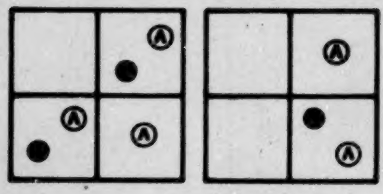
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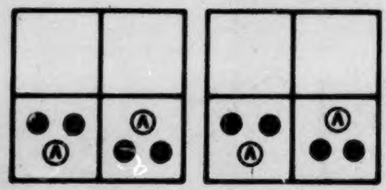
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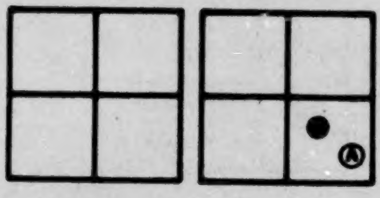
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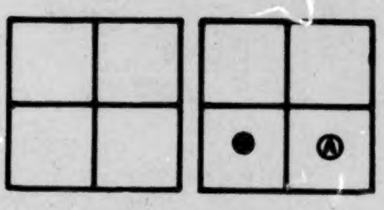
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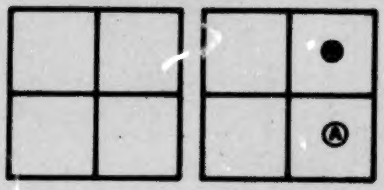
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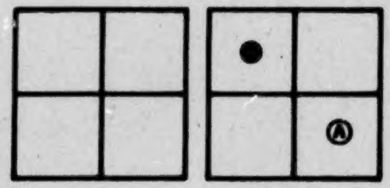
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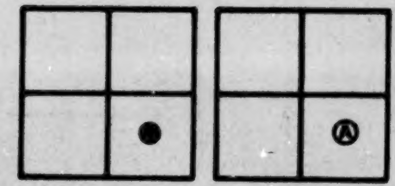
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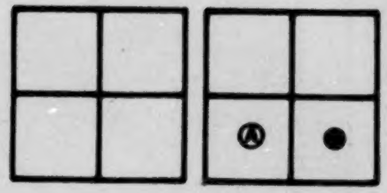
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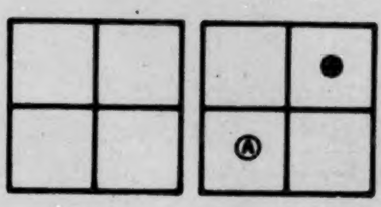
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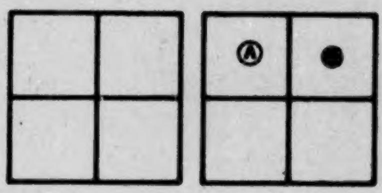
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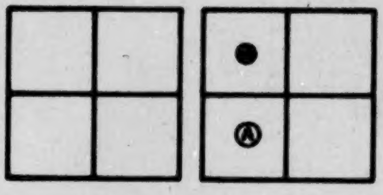
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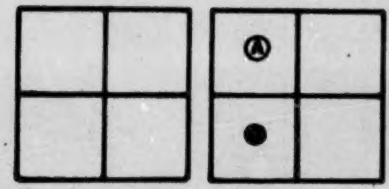
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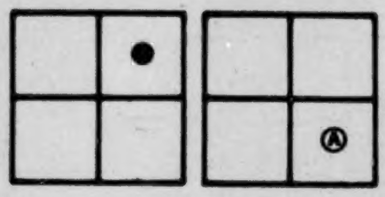

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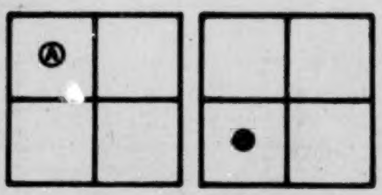

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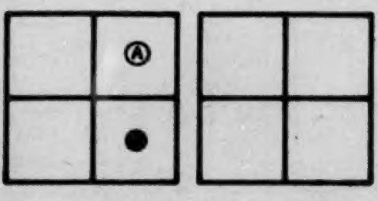

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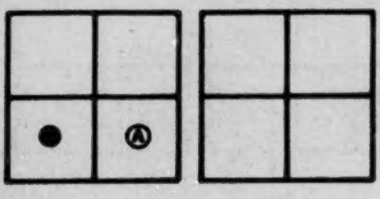

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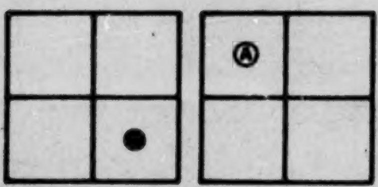

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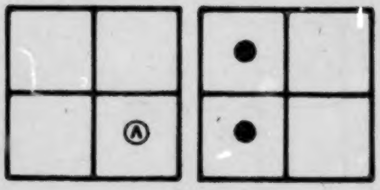

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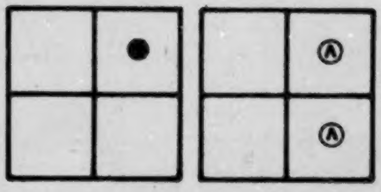

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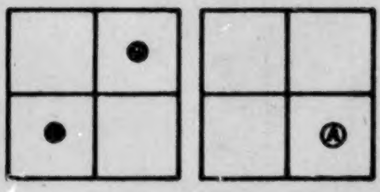

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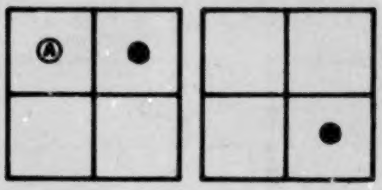

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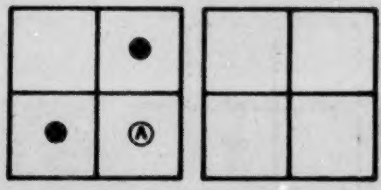


= ______

Name ______________________

N 21 ****

Put these numbers on the Minicomputer.

Use exactly one regular checker and one negative checker for each number.

$4 =$

$8 =$

$20 =$

$19 =$

$38 =$

$\widehat{2} =$

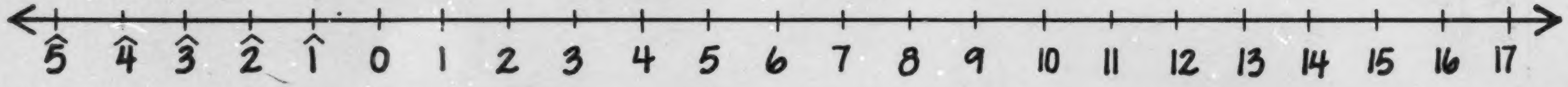
$\widehat{9} =$

$\widehat{10} =$

$\widehat{36} =$

$\widehat{72} =$

Name ______________________


$\hat{5}$
$\hat{4}$
$\hat{3}$
$\hat{2}$
$\hat{1}$
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17

Complete.

16 − 10 = ___

11 − 10 = ___

13 − 10 = ___

17 − 10 = ___

12 − 10 = ___

10 − 10 = ___

9 − 10 = ___

5 − 10 = ___

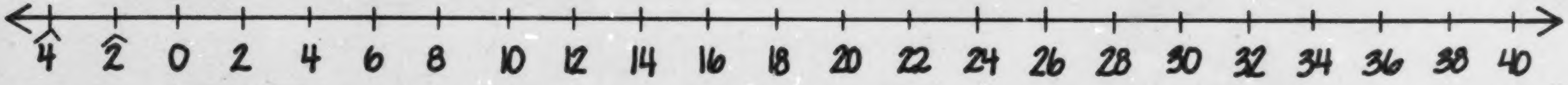
7 − 10 = ___

6 − 10 = ___

N 22

*

Name ______________________________



4̂
2̂
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40

Complete.

40 - 10 = ___
28 - 10 = ___
29 - 10 = ___

24 - 10 = ___
27 - 10 = ___
38 - 10 = ___

32 - 10 = ___
26 - 10 = ___
38 - 20 = ___

18 - 10 = ___
25 - 10 = ___
38 - 30 = ___

36 - 10 = ___
21 - 10 = ___
38 - 40 = ___

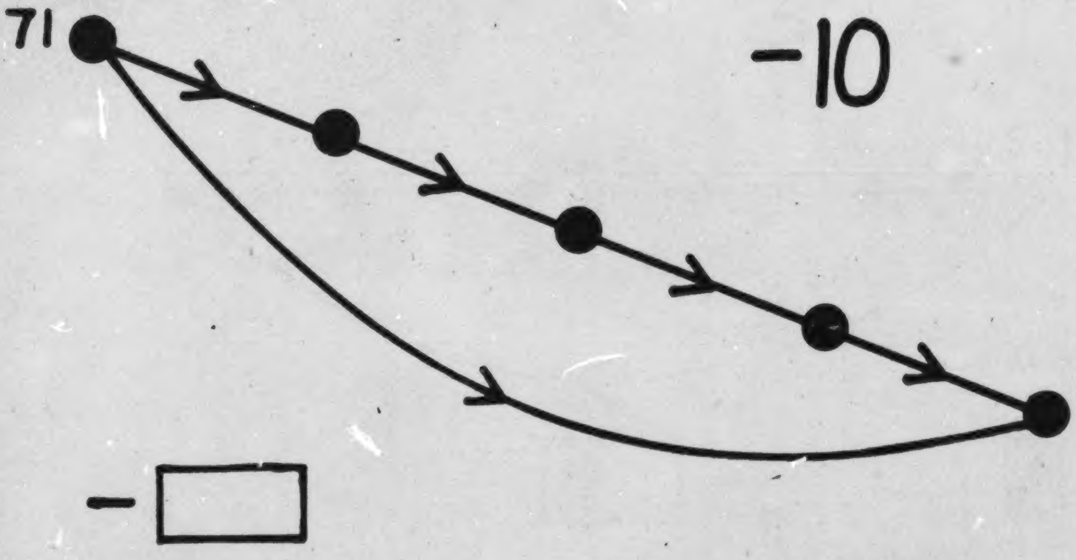
N 22 **

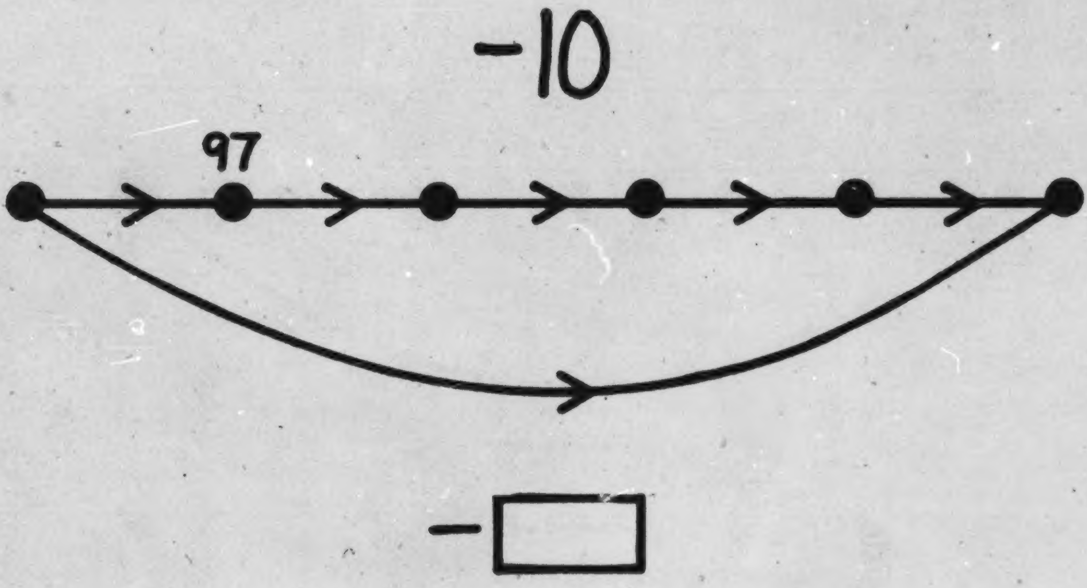
Name ______________________________

N 22 ***

Label the dots.

Fill in the box for each blue arrow.

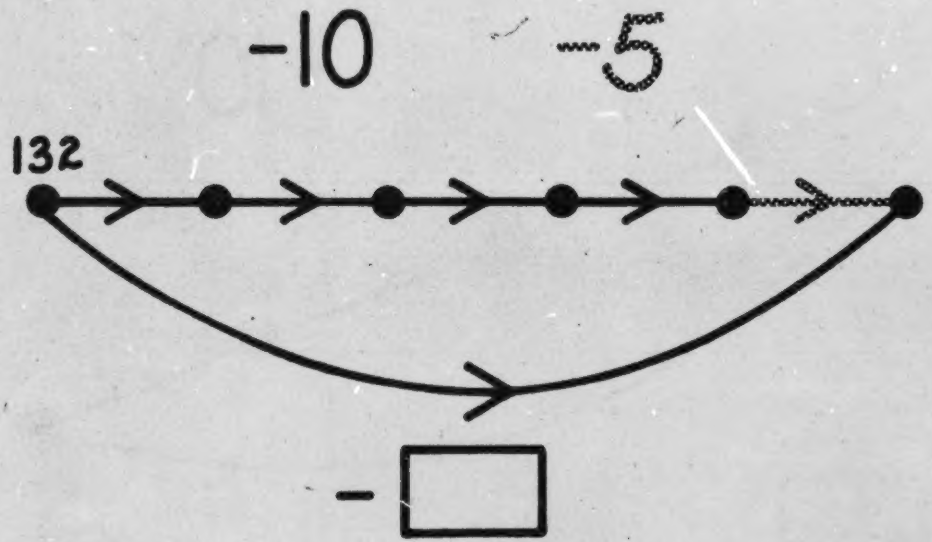


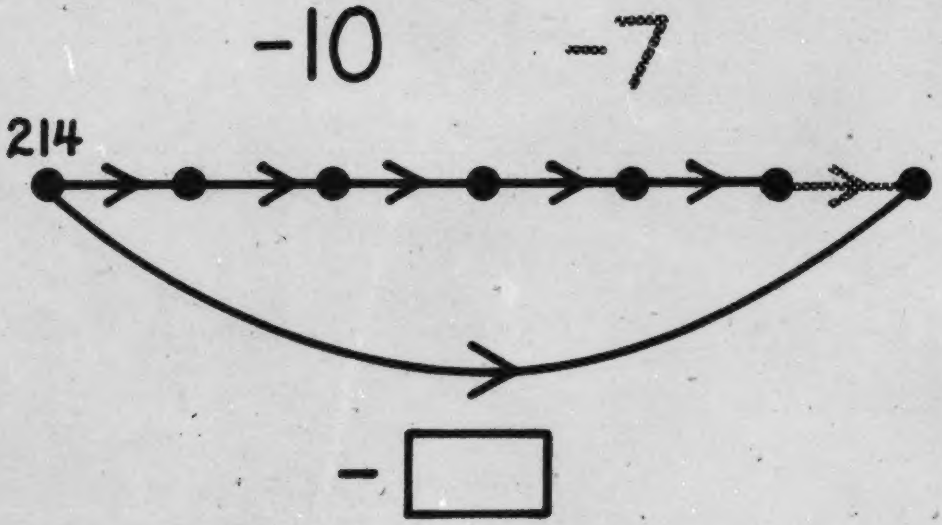


Name ______________________ **N 22 ⁎⁎⁎⁎**

Label the dots.

Fill in the box for each blue arrow.

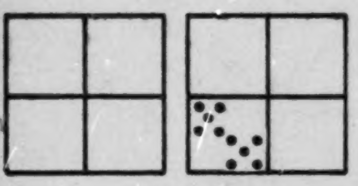




Name ______________________

N 23 *

What number is on the Minicomputer?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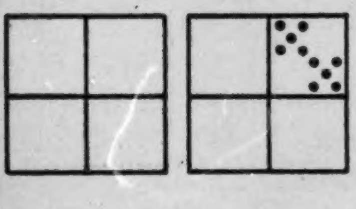
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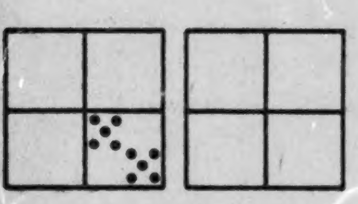
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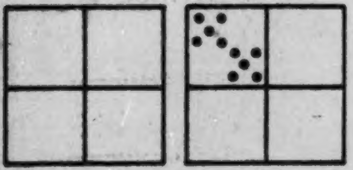
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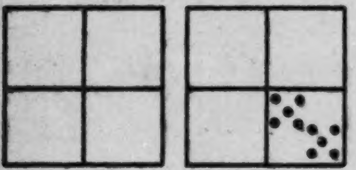
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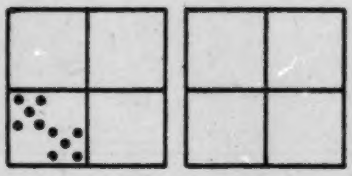
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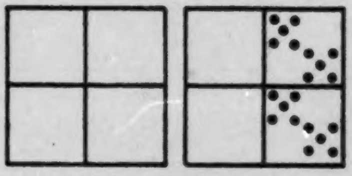
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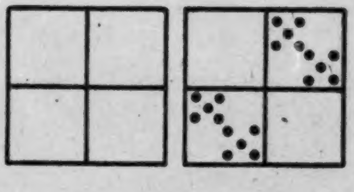
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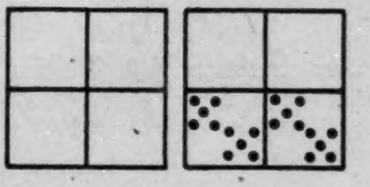
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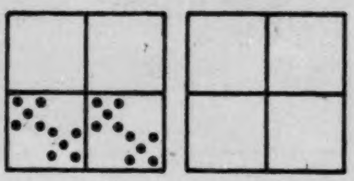
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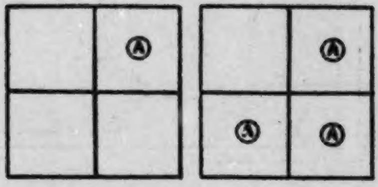
Name ________________

N 23 **

What number is on the Minicomputer?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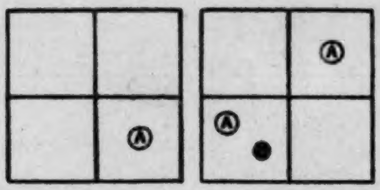
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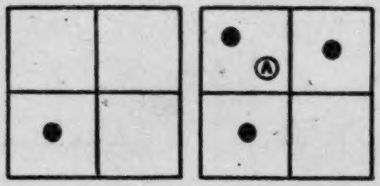
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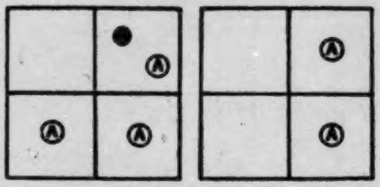
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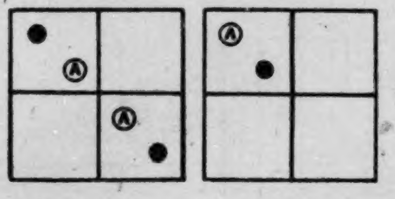
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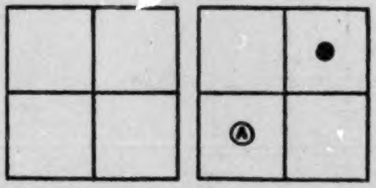
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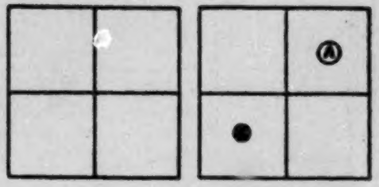
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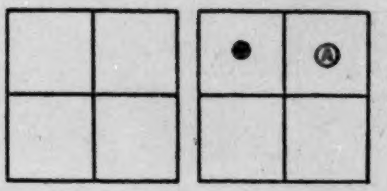
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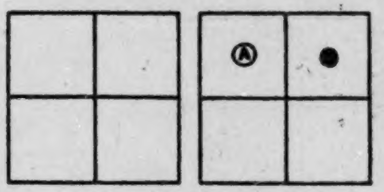
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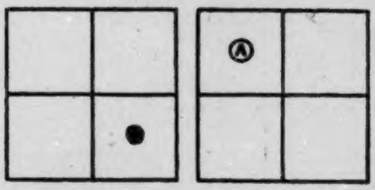
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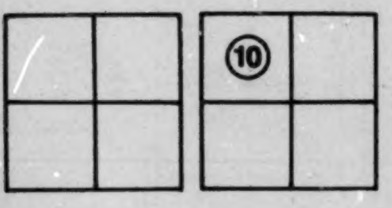
Name ______________________

N 23 ***

What number is on the Minicomputer?



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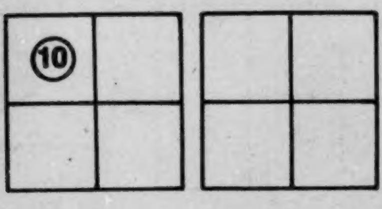

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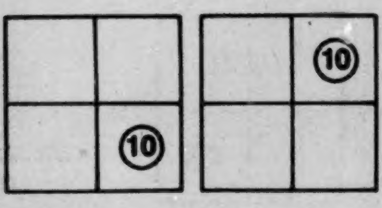

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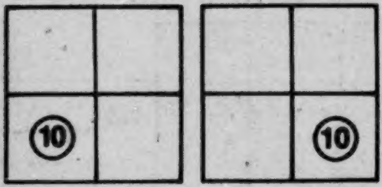

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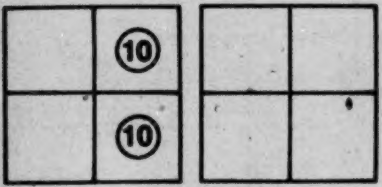

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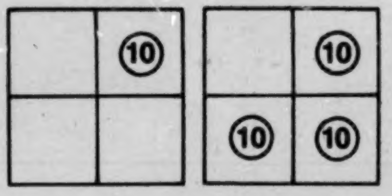

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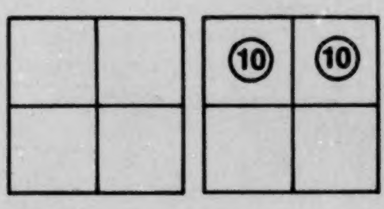

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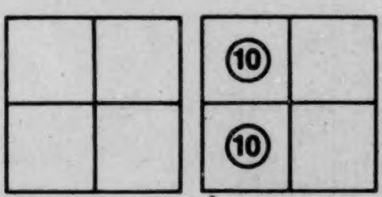

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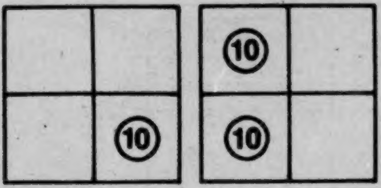

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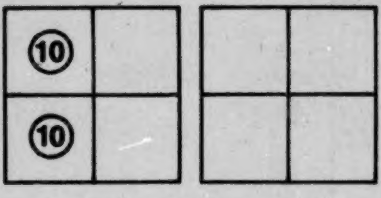
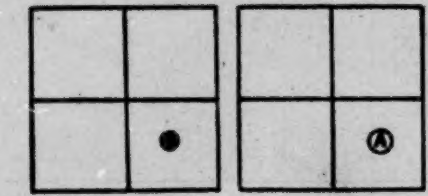


= ______

Name ______________________

N 23 ****

What number is on the Minicomputer?



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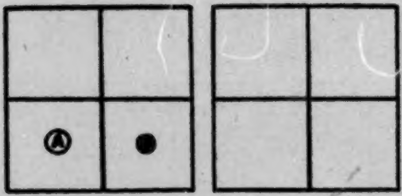

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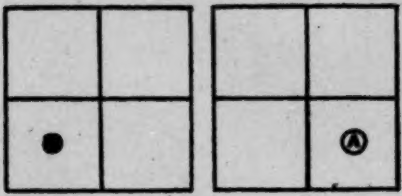

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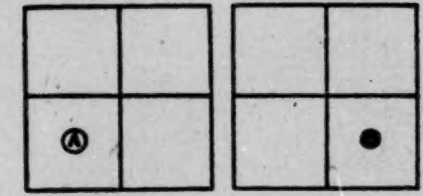

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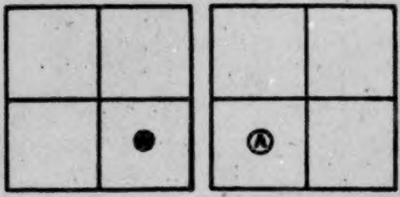

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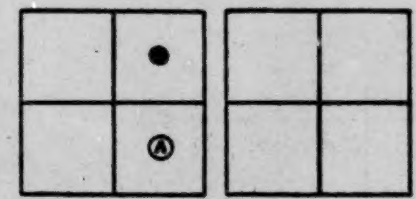

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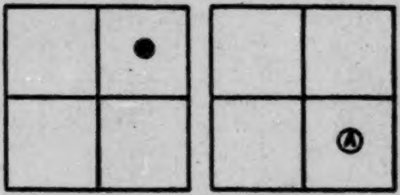

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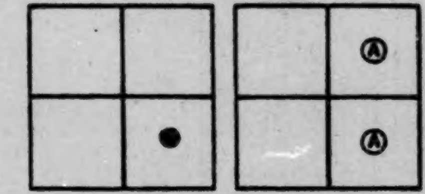

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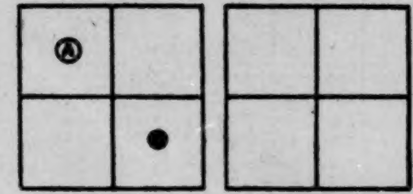

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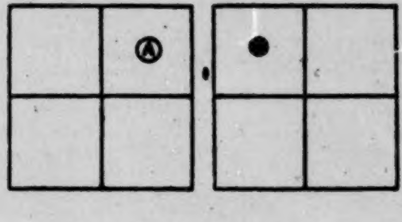
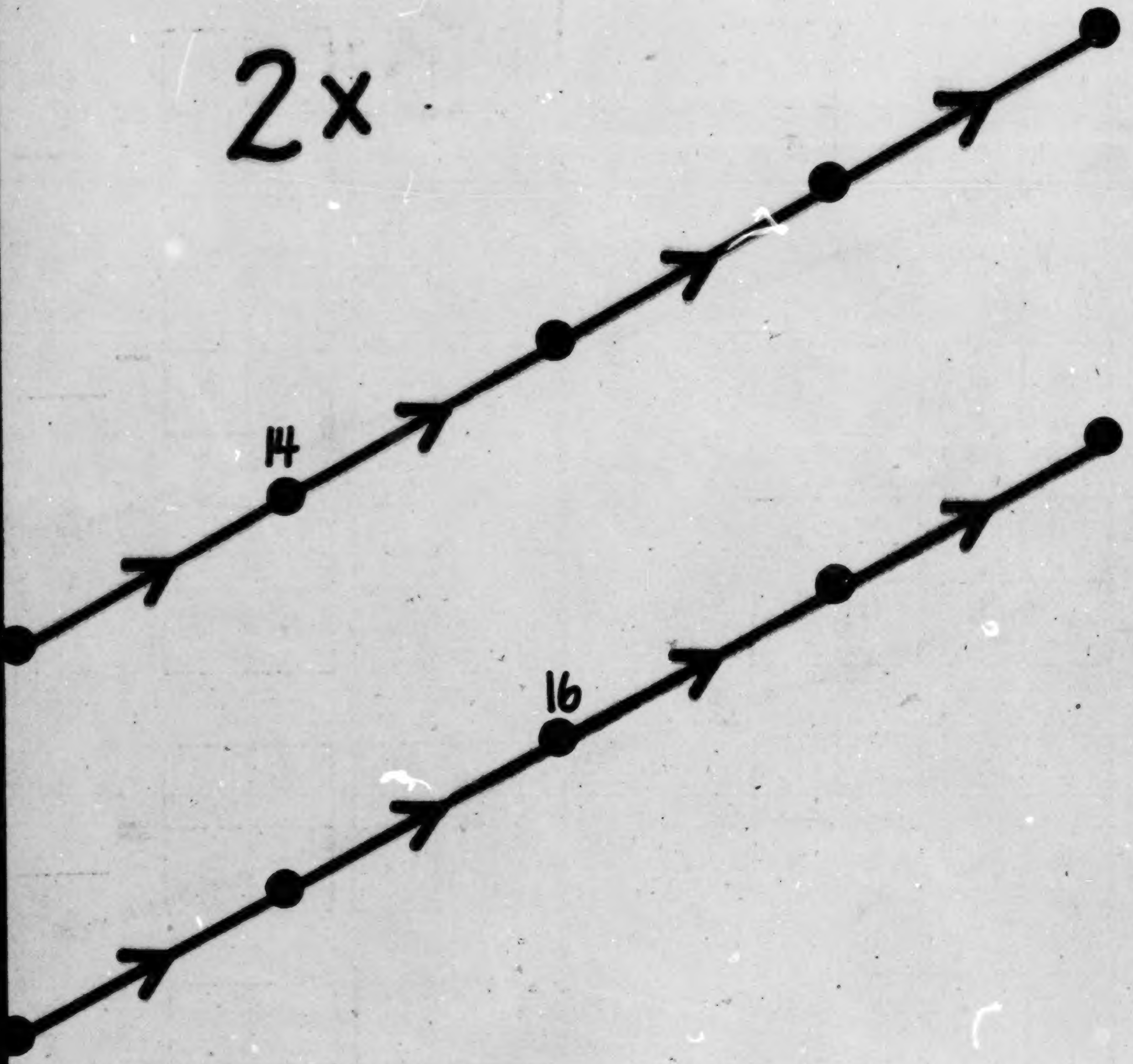


= ______

Name ______________________ N 24 *

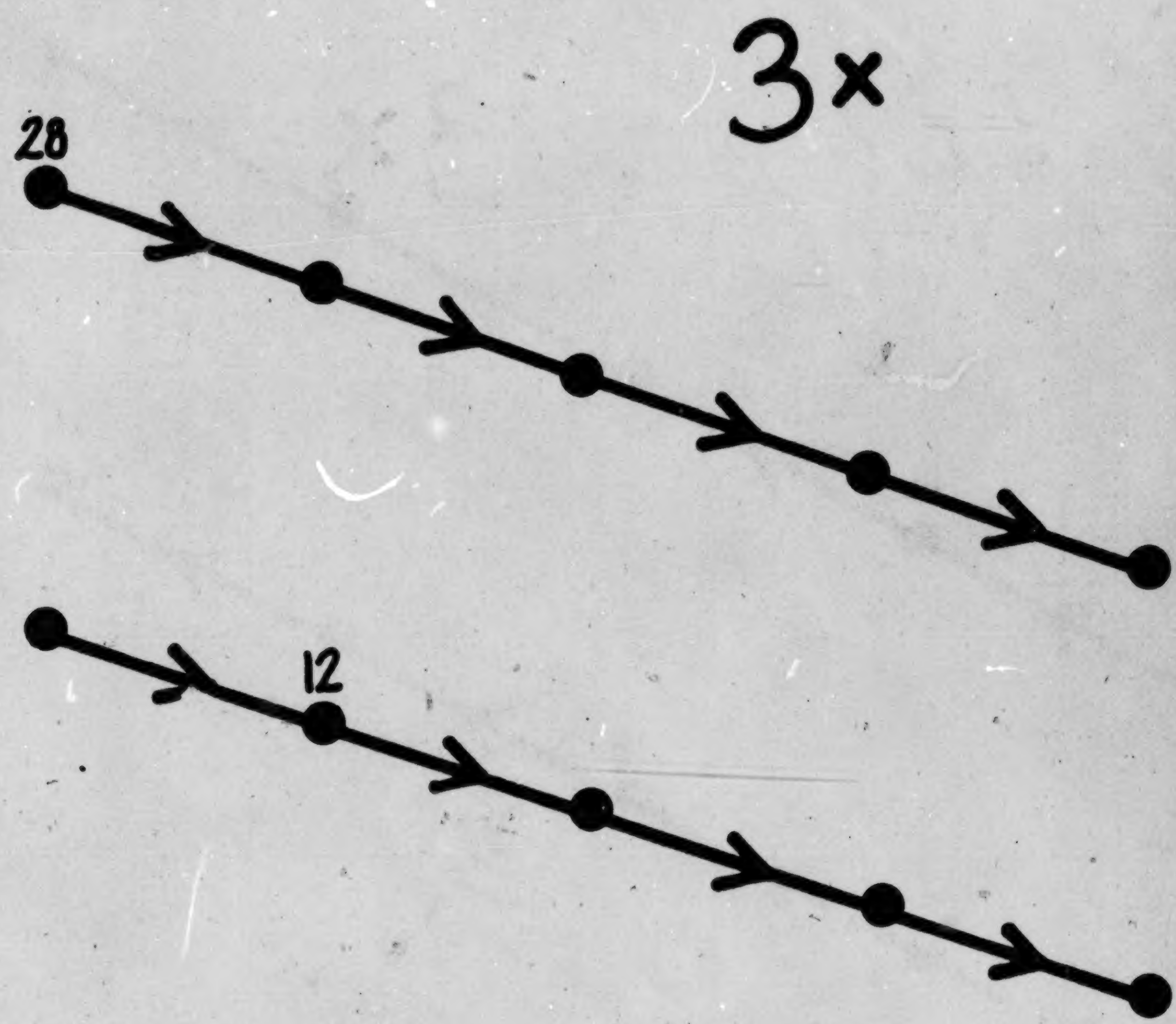
Label the dots.



Name

N 24 **

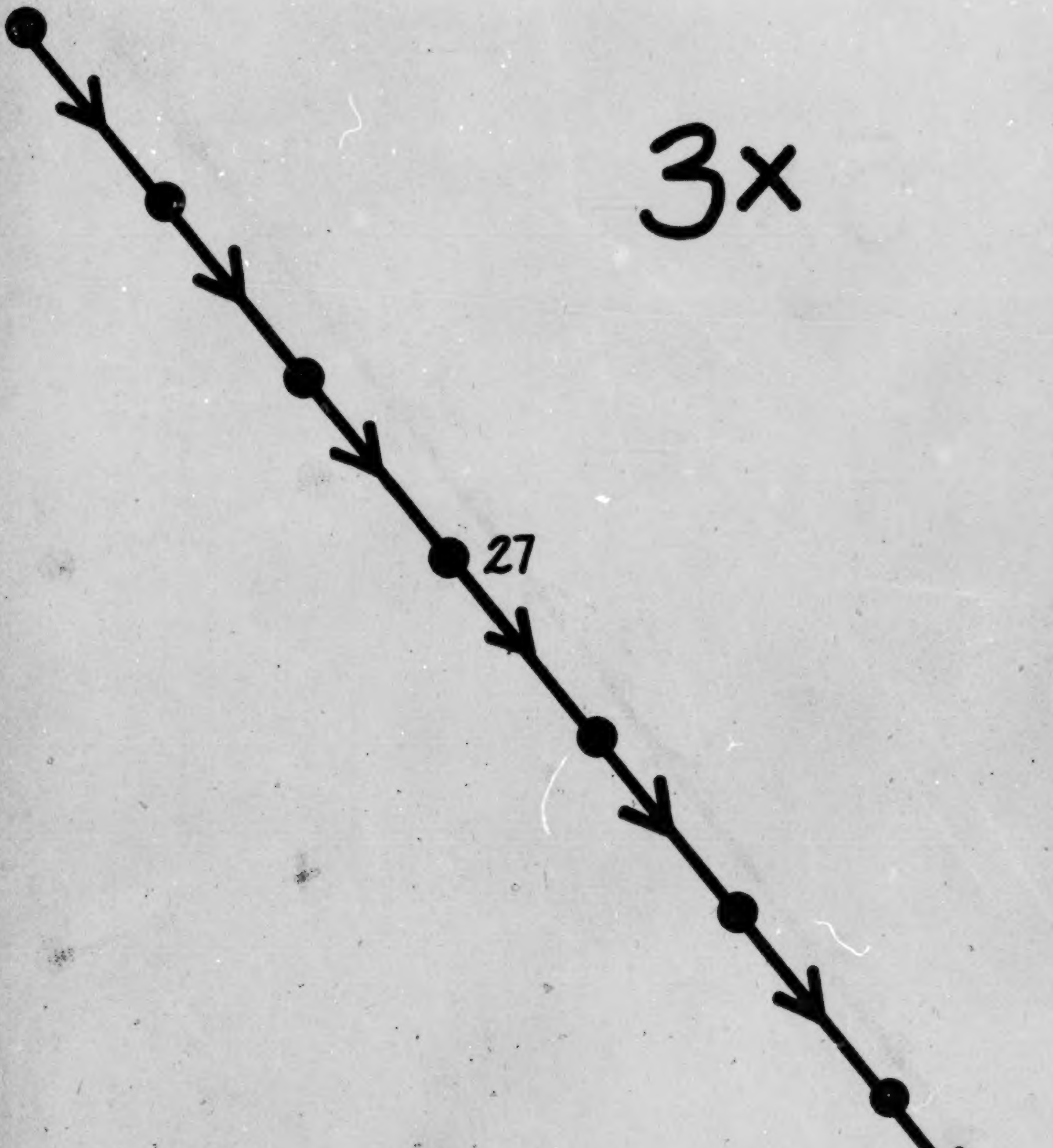
Label the dots.



Name

N 24 ***

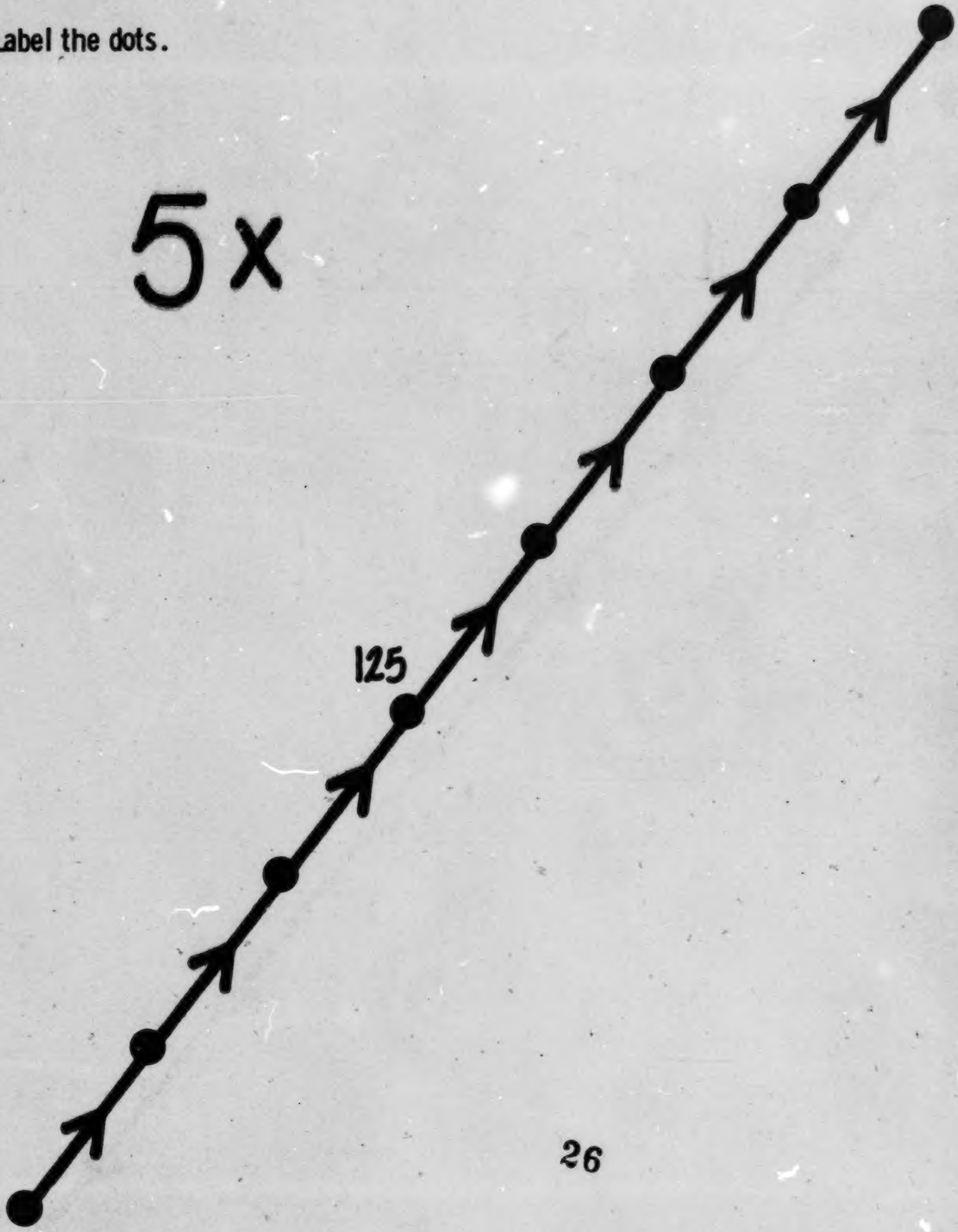
Label the dots.



Name ____________________

N 24 *****

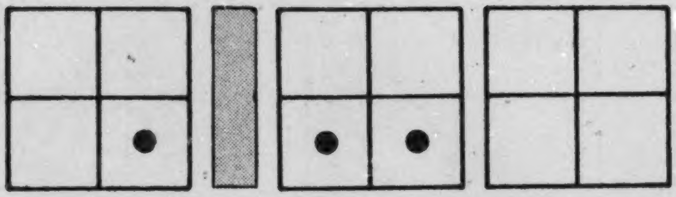
Label the dots.



Name ______________________

N 27 *

What number is on the Minicomputer?



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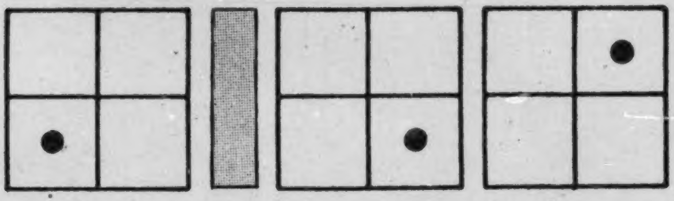

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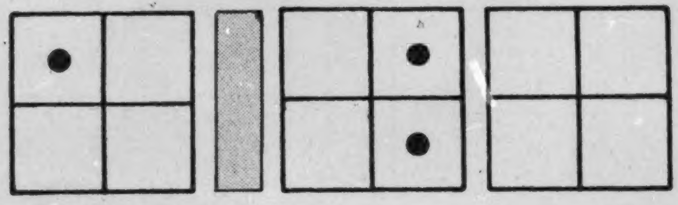

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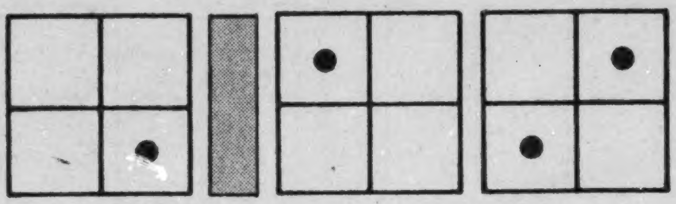

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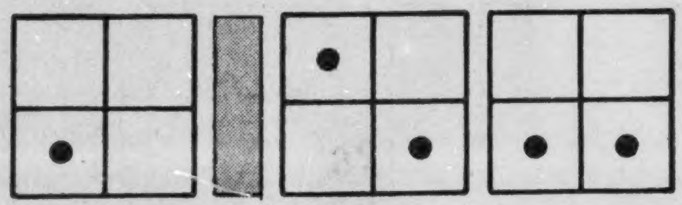
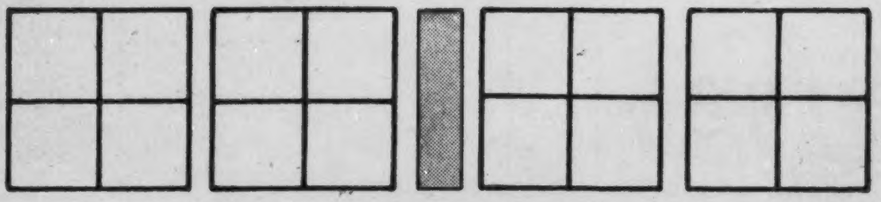


= ______

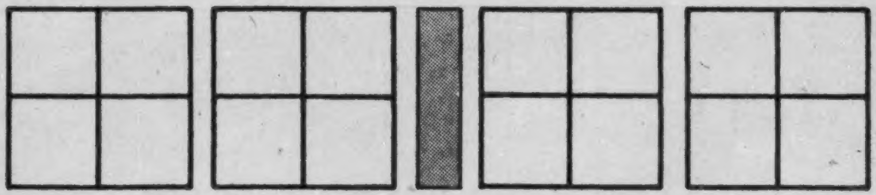
Name ____________________ **N 27** **

Put these numbers on the Minicomputer.

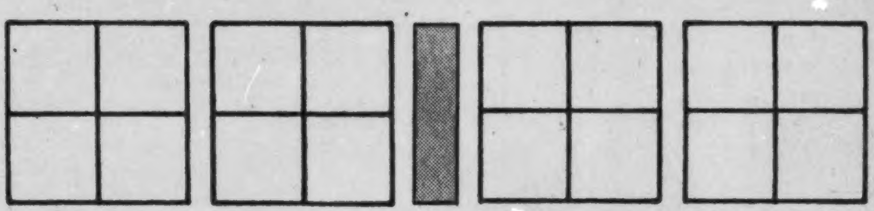
4.60 =



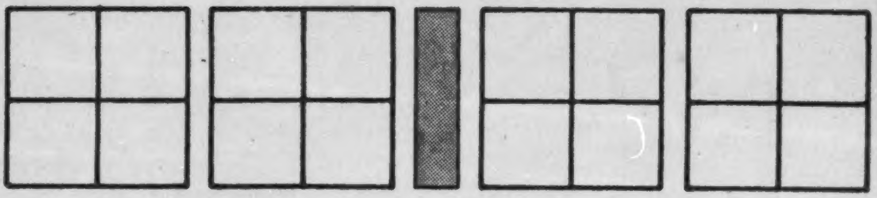
10.78 =



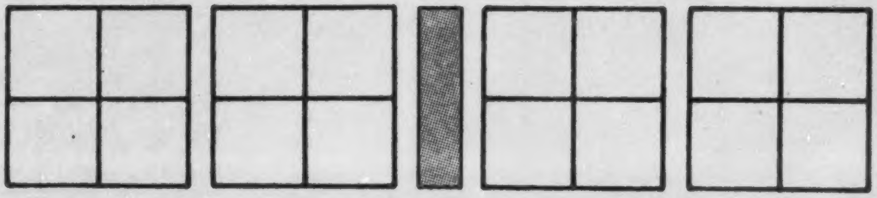
5.14 =



3.09 =



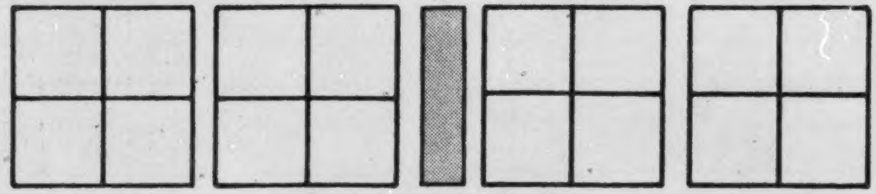
7.0 =

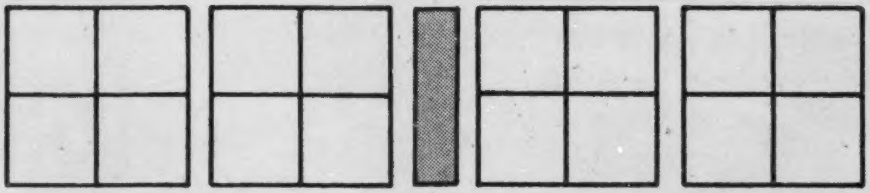


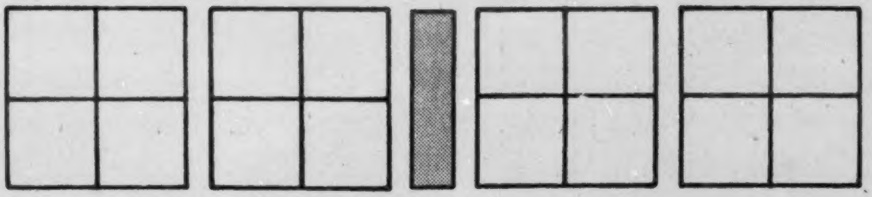
Name ______________________

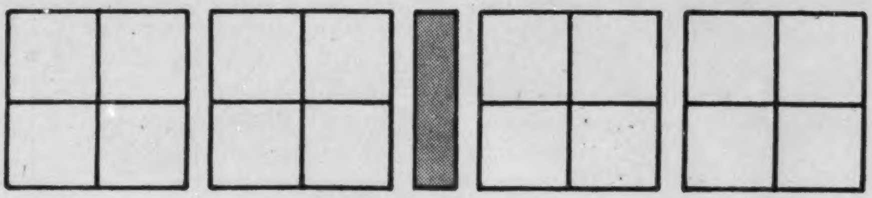
N 27 ***

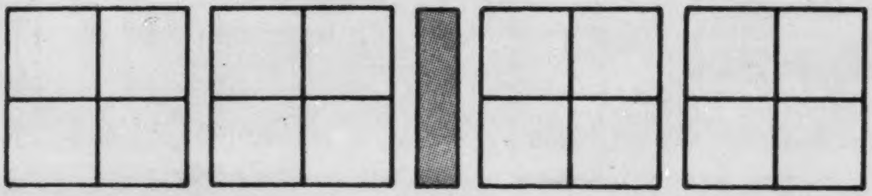
Put these numbers on the Minicomputer.

21.48 =


7.62 =


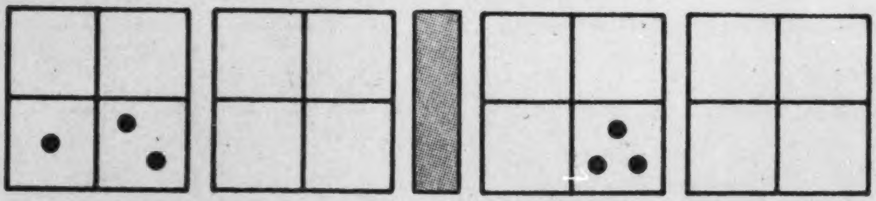
9.3 =


0.4 =


50 =


Name ______________________ **N 27 ******

What number is on the Minicomputer?



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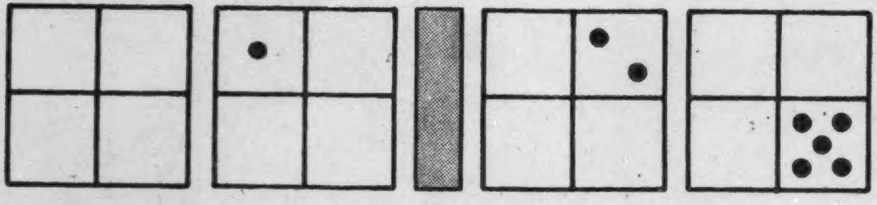

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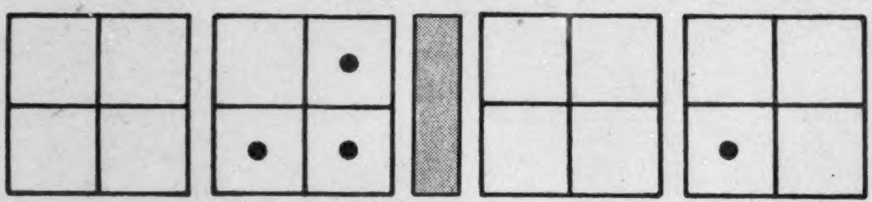

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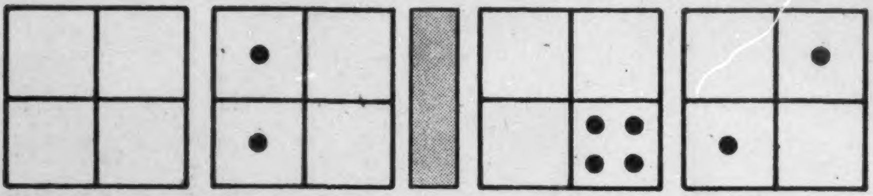

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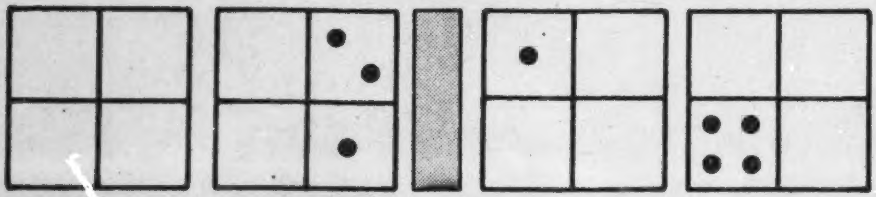

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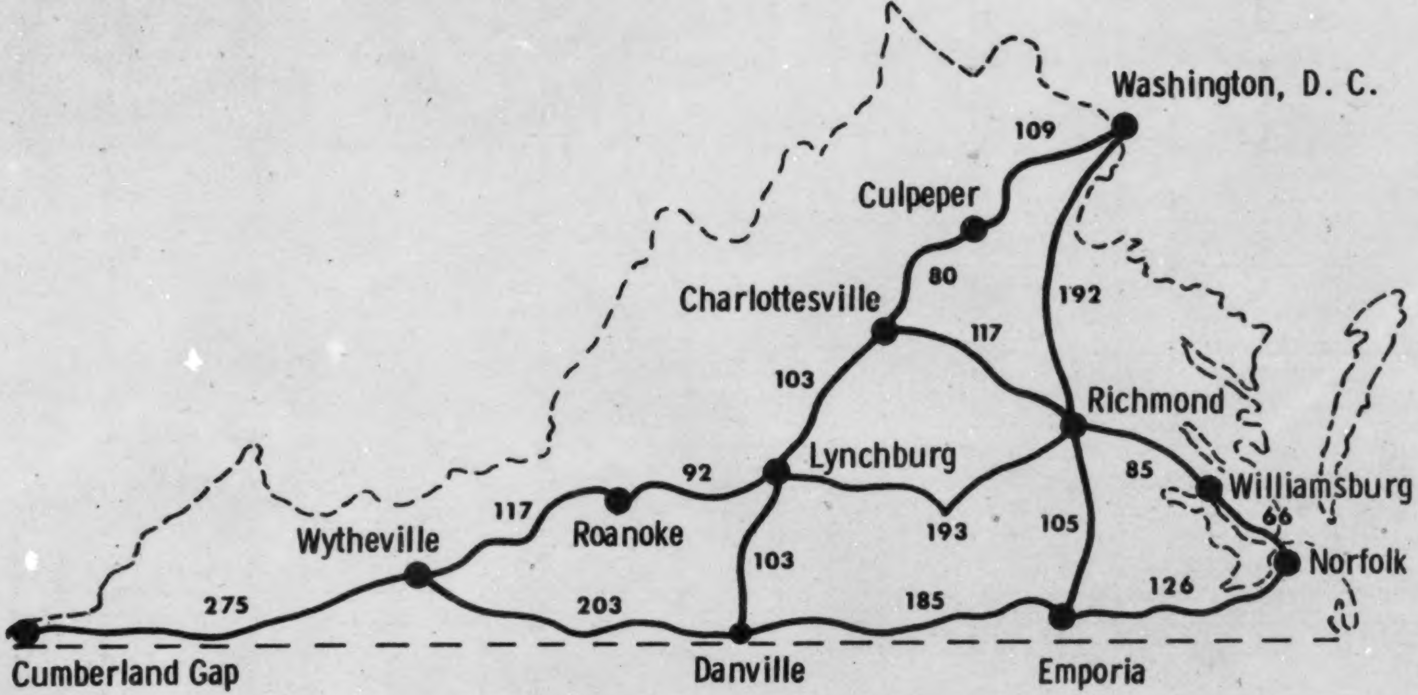
Name ______________________________


Washington, D. C.
109
Culpeper
80
192
Charlottesville
117
103
Richmond
Lynchburg
92
85
Williamsburg
66
117
Roanoke
Wytheville
193
105
Norfolk
103
126
275
203
185
Cumberland Gap
Danville
Emporia

N 31

Name ______________________________ **N 32 ***

Build a yellow-red-blue road from 141 to 88.

−100
−10
−1

● 141

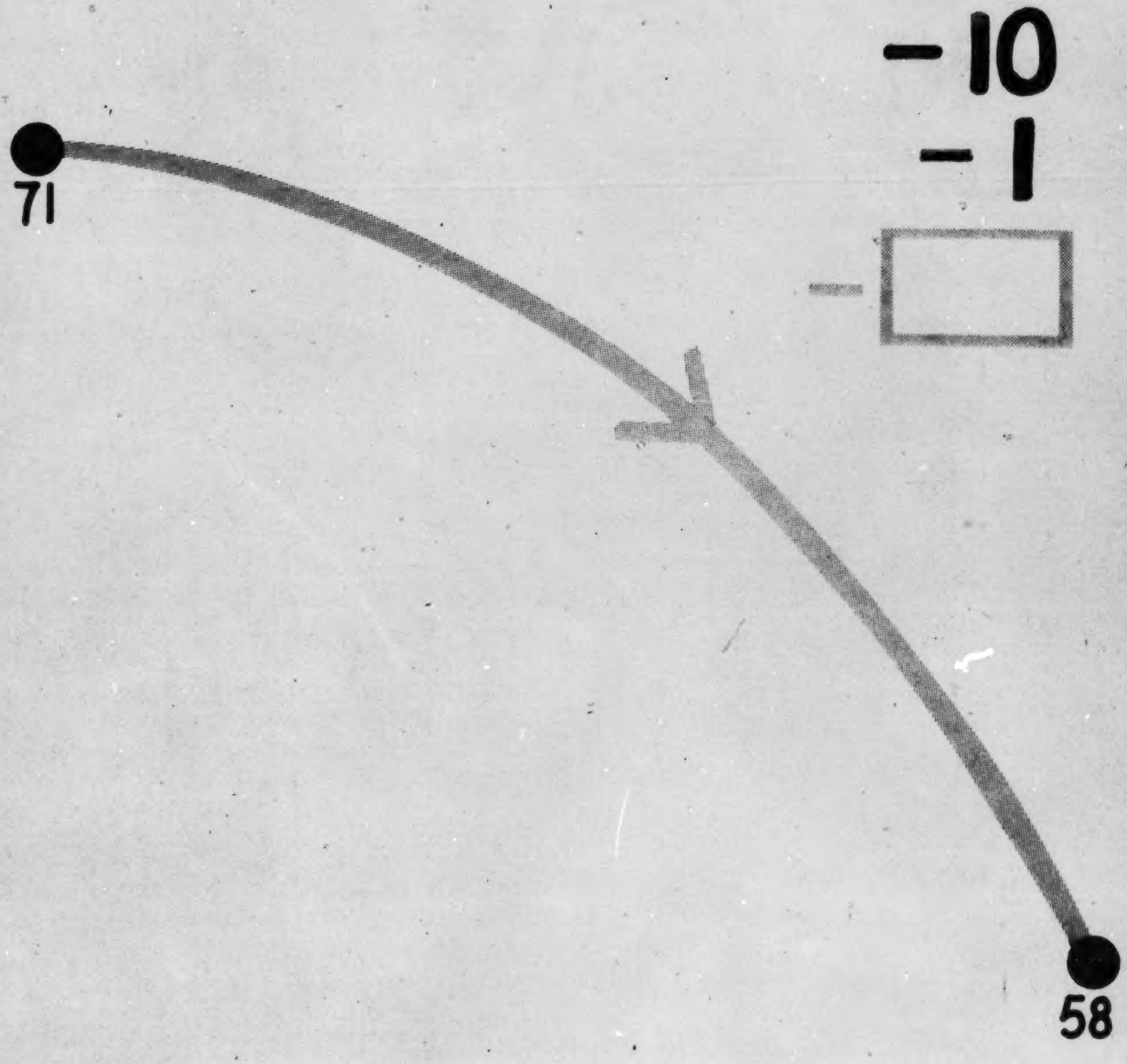
●
88

Name ____________________

N 32 **

Build a red-blue road from 71 to 58.

Fill in the box for the grey arrow.



Name ______________________

N 32 ***

Build a yellow-red-blue road from 200 to 88.

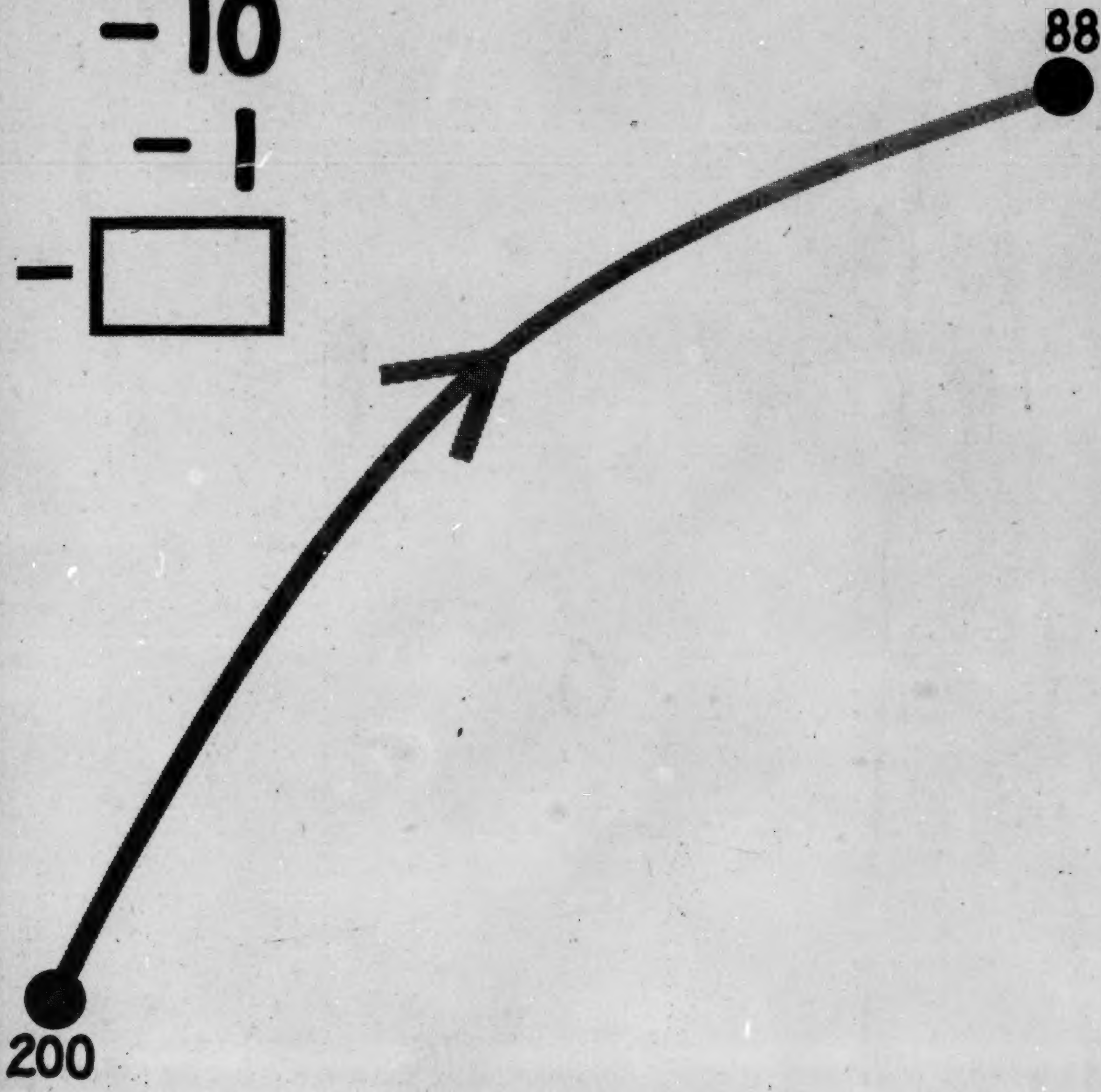
Fill in the box for the grey arrow.

−100

−10

−1

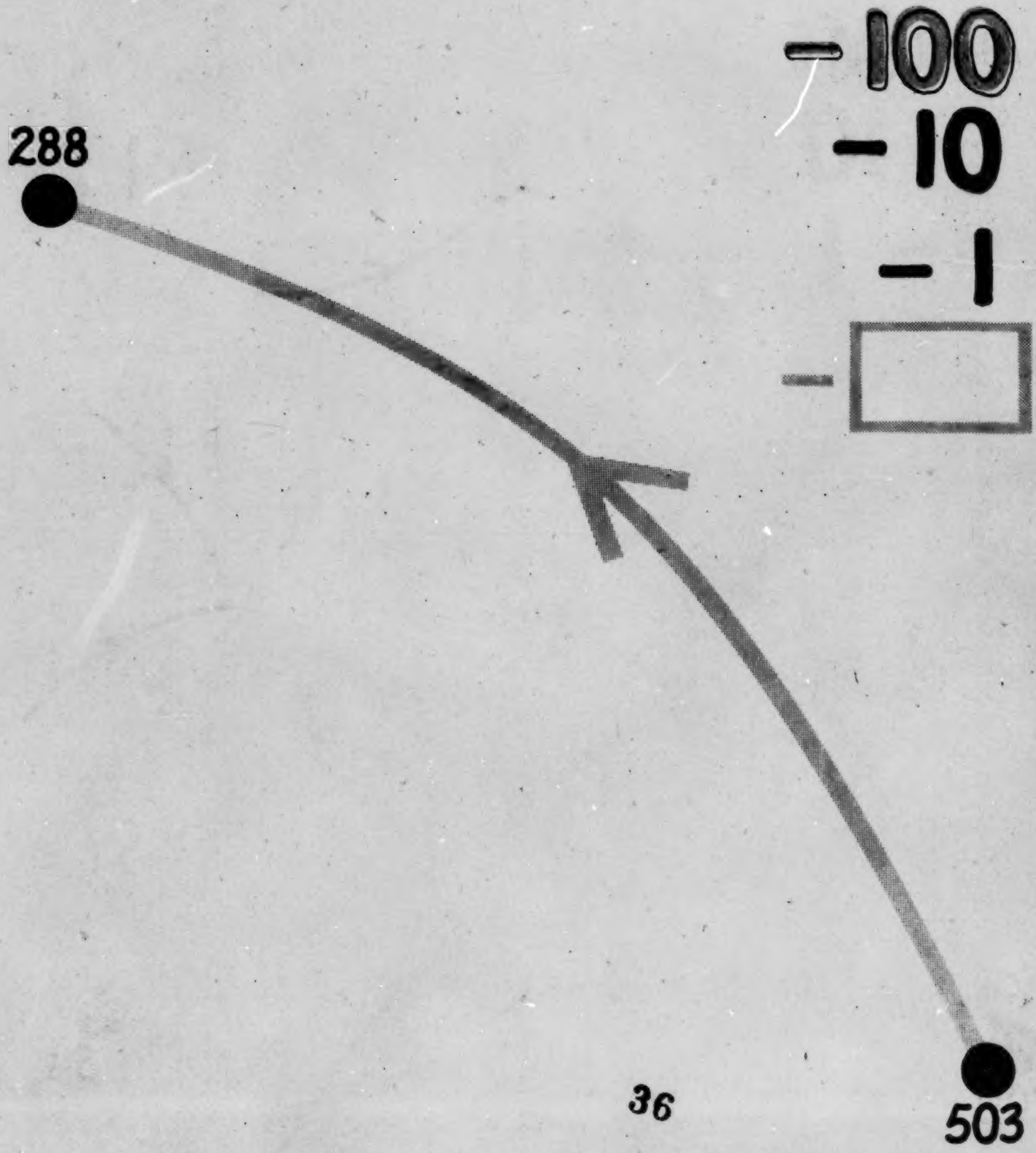
− ☐



Name ______________________

N 32 ****

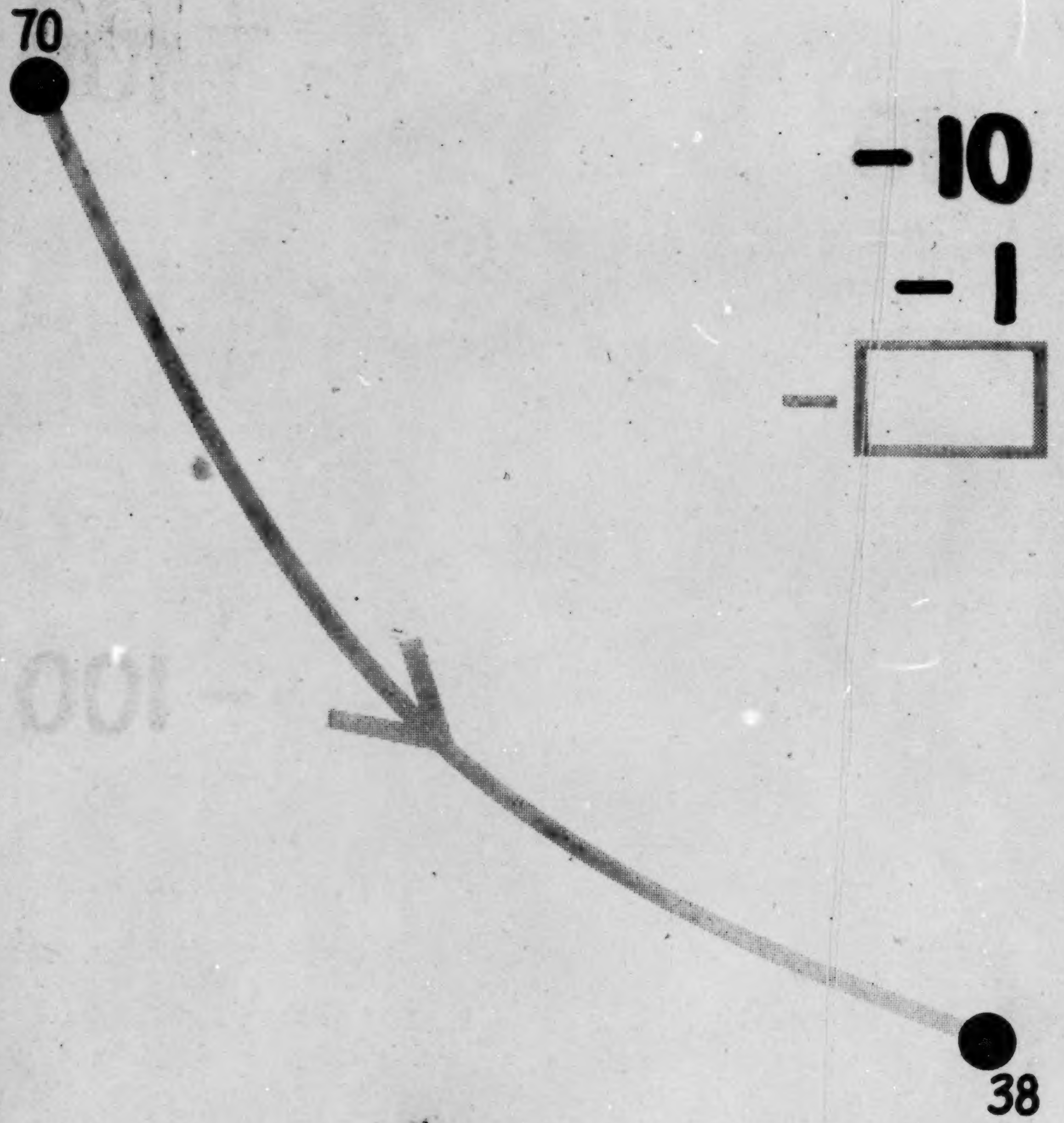
Build a yellow-red-blue road from 503 to 288.
Fill in the box for the grey arrow.


−100
−10
−1
−☐
288
503

Name ________________________ **N 36 ***

Build a red-blue road from 70 to 38.

Fill in the box for the grey arrow.

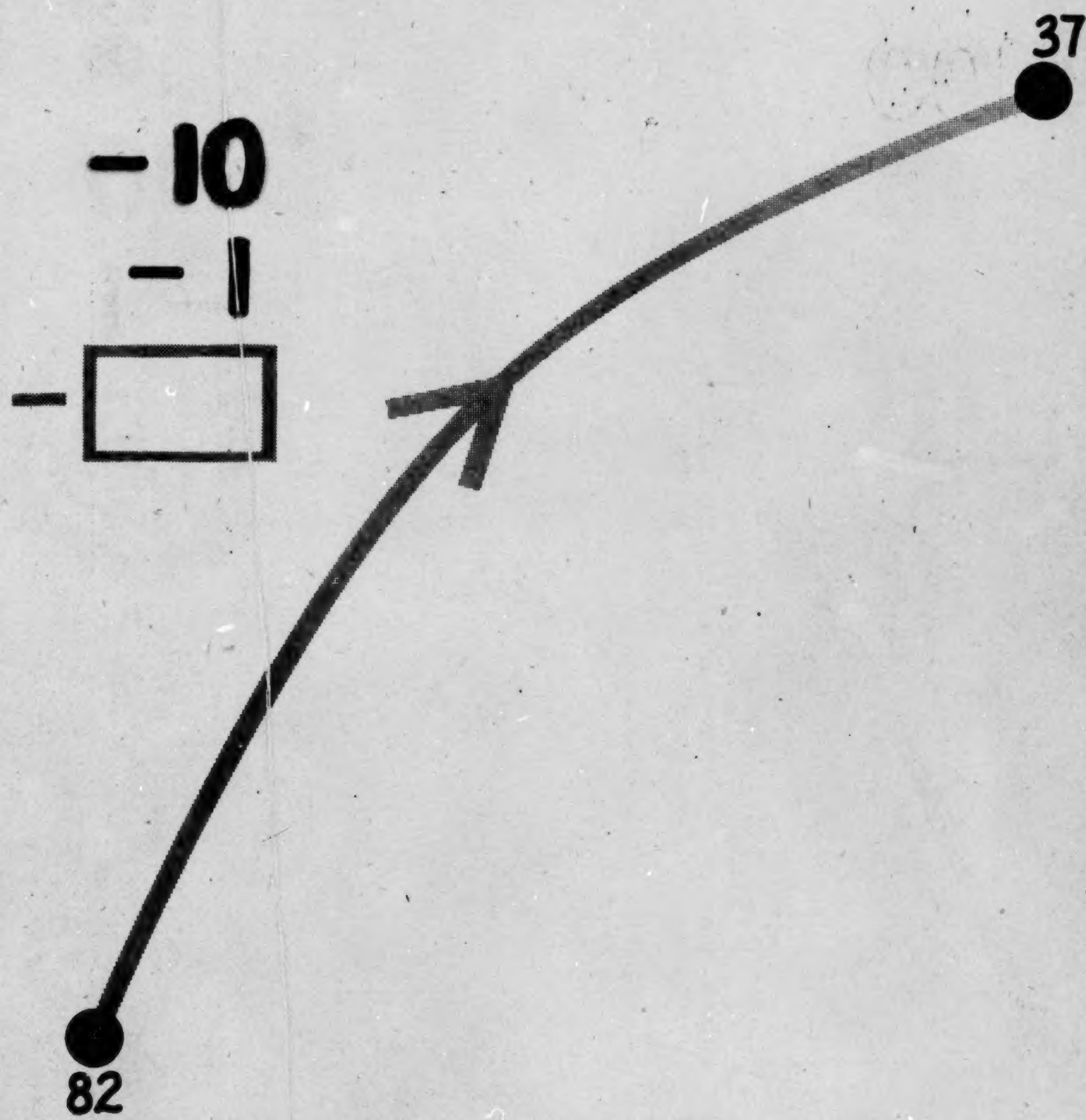


Name ____________________

N 36 **

Build a red-blue road from 82 to 37.

Fill in the box for the grey arrow.



Name ______________________

N 36 ***

Build a yellow-red-blue road from 562 to 237.

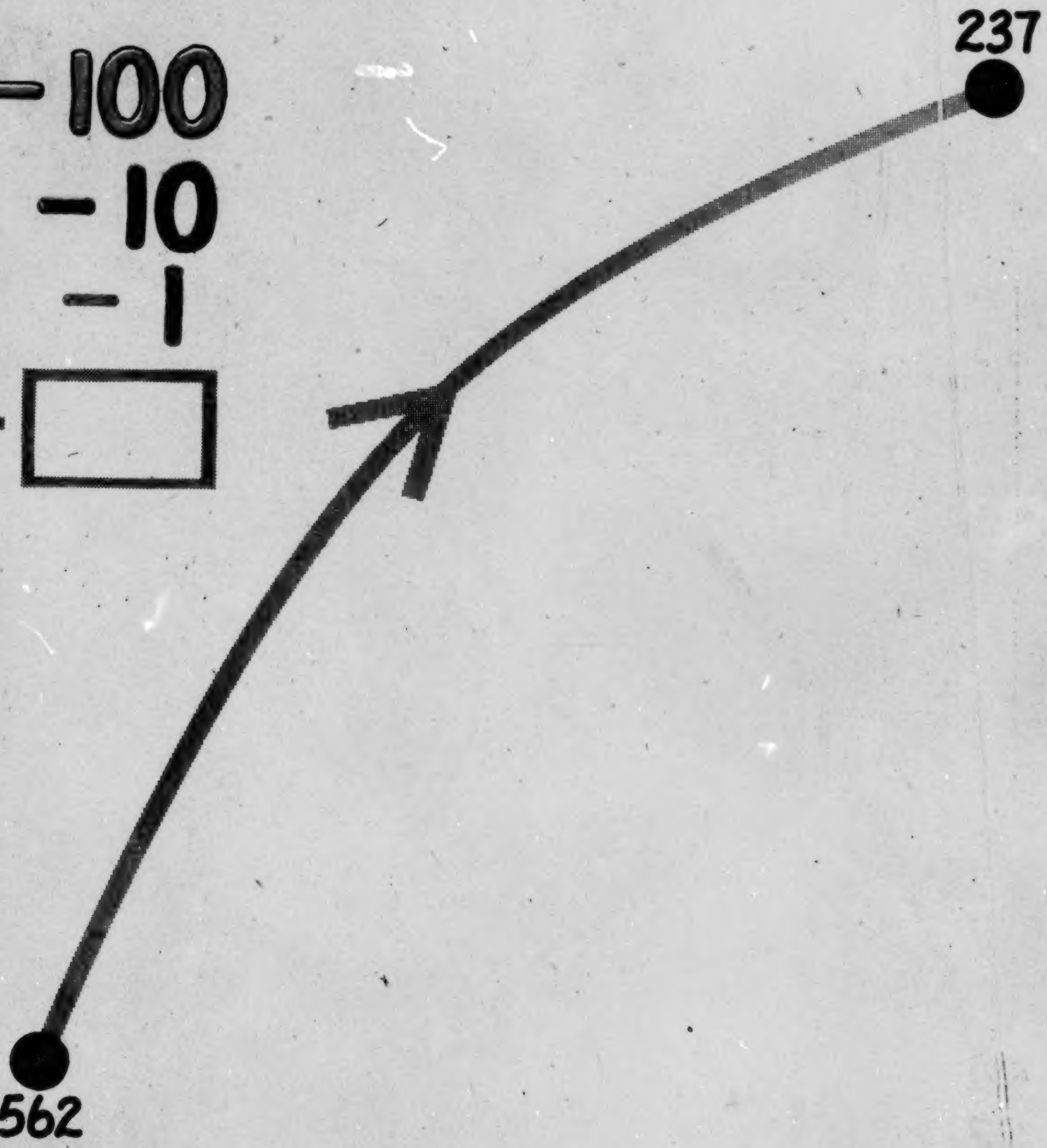
Fill in the box for the grey arrow.

−100

−10

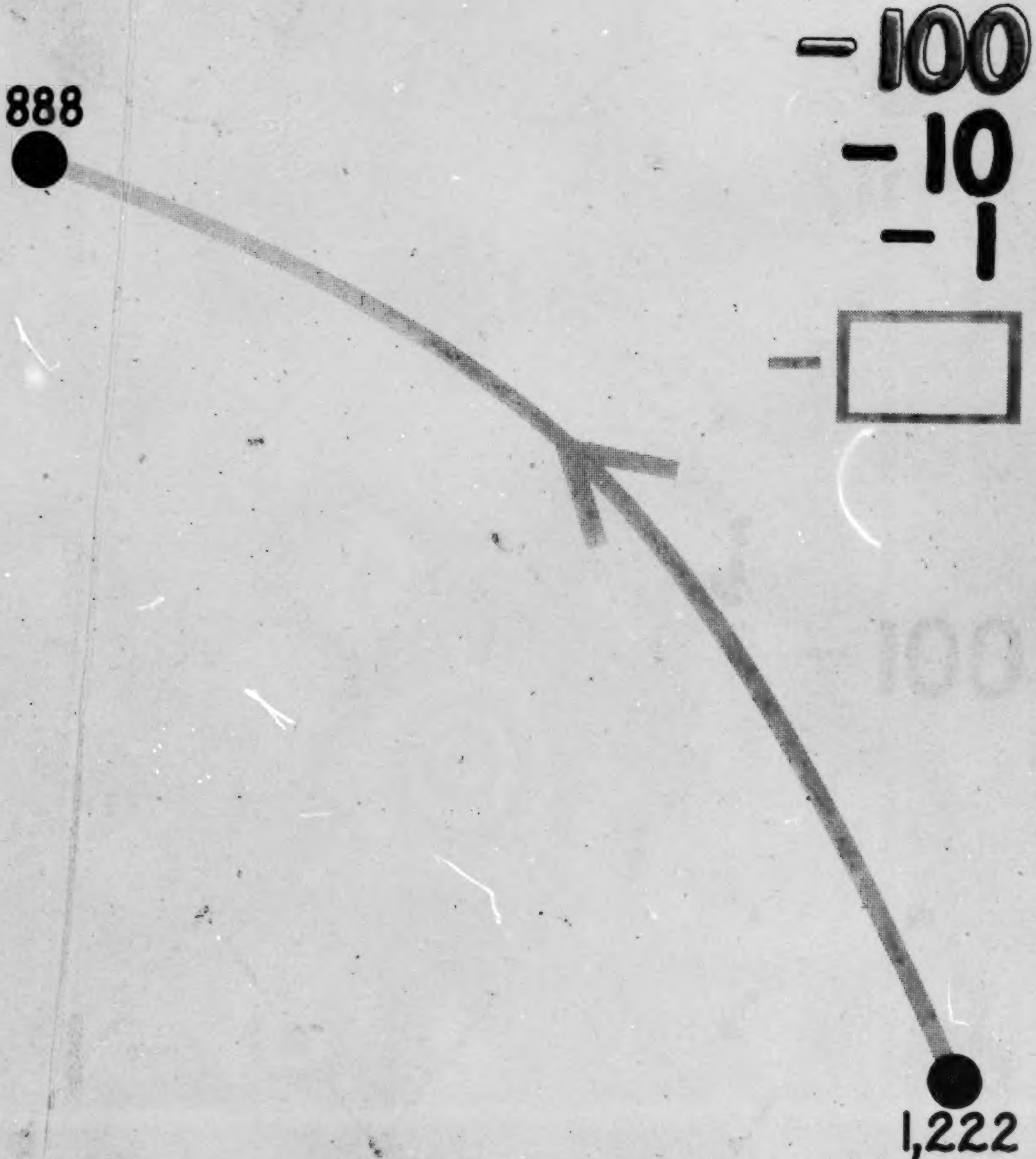
−1

− ☐



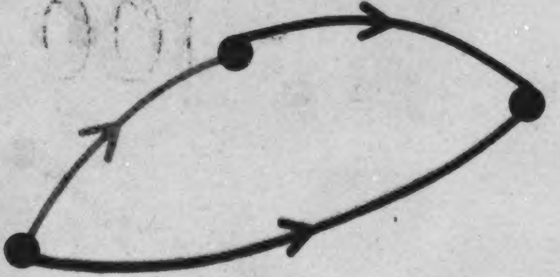
Build a yellow-red-blue road from 1,222 to 888.

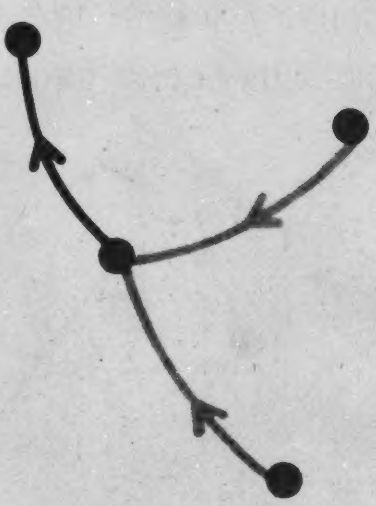
Fill in the box for the grey arrow.

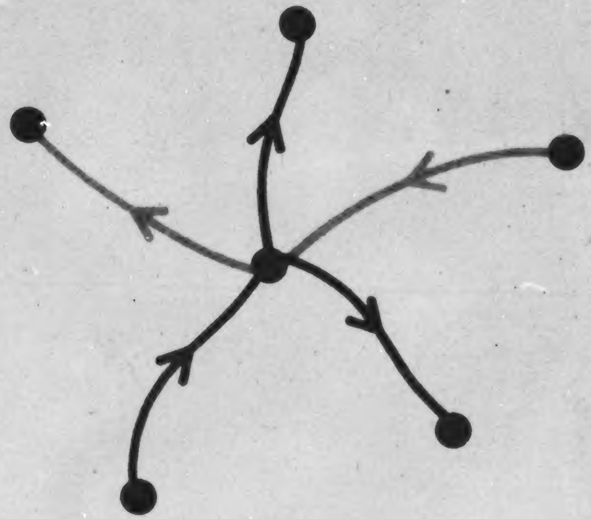

−100
−10
−1
− ☐
888
1,222

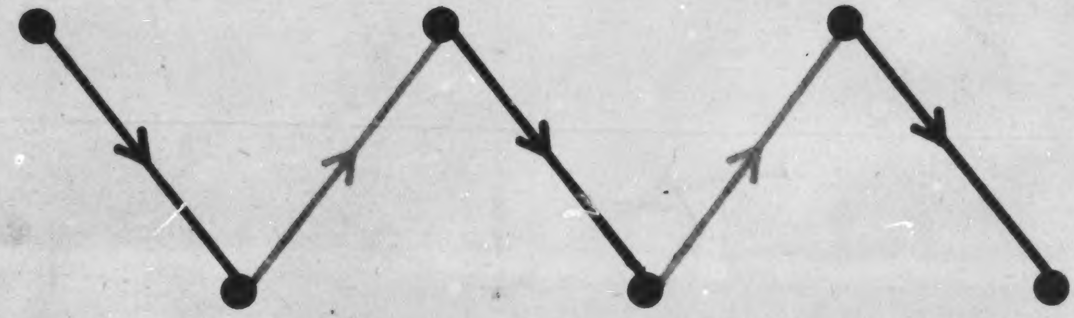
Name ____________________ **L 2 ***

Draw the missing red arrows.





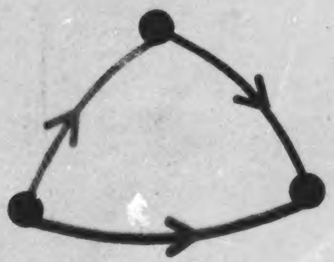


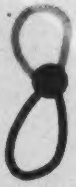


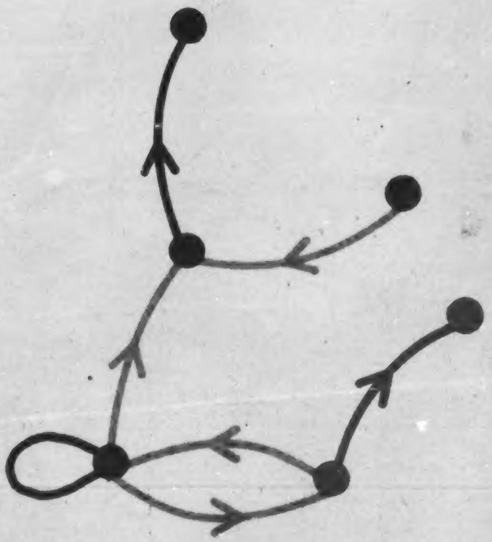
Name ______________________________

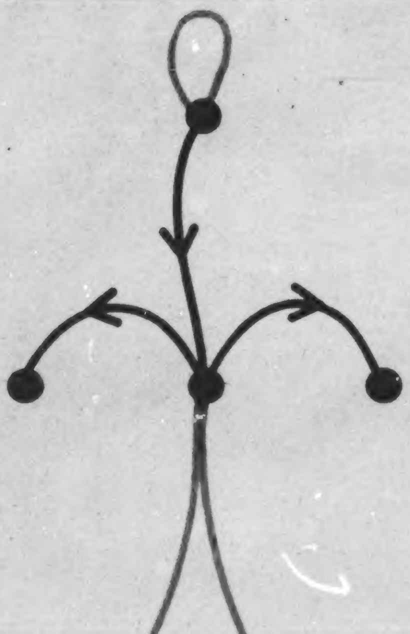
L 2 **

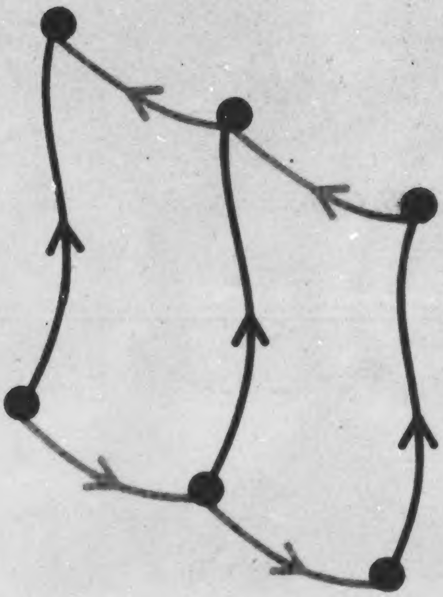
Draw the missing red arrows.







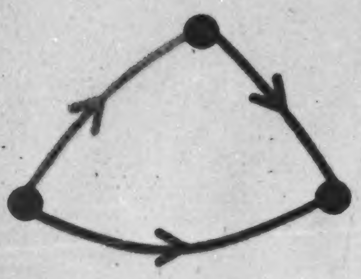


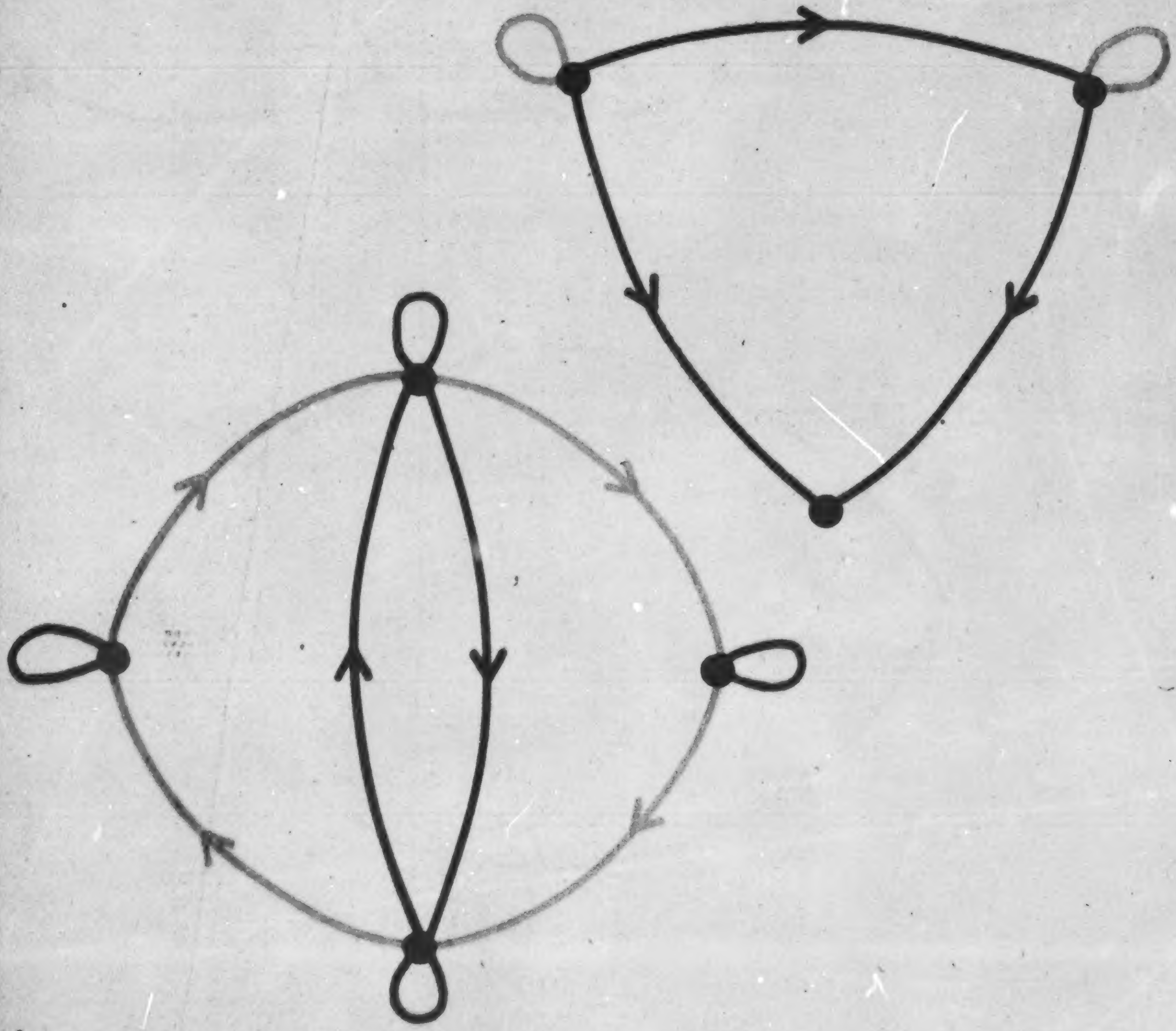


Name ________________________

L 2 ***

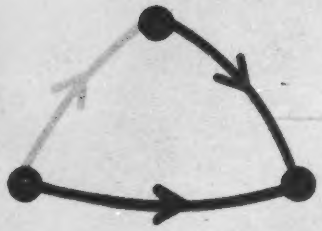
Draw the missing red arrows.

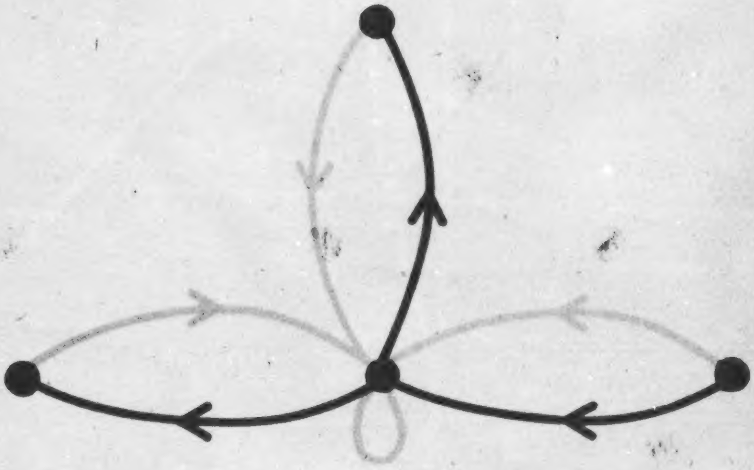


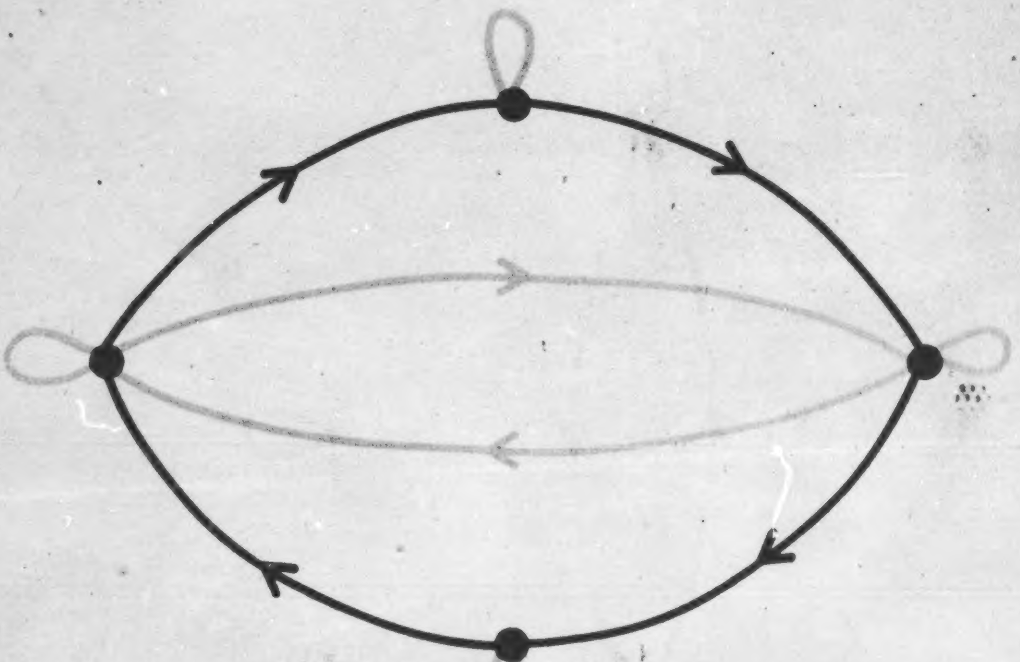


Name ______________________ **L 2 ******

Draw the missing red arrows.



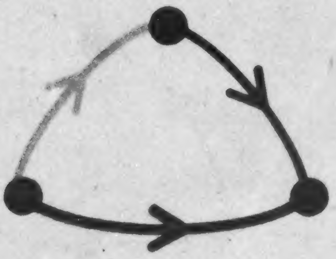


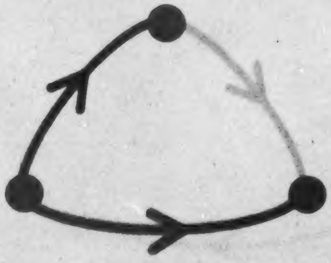


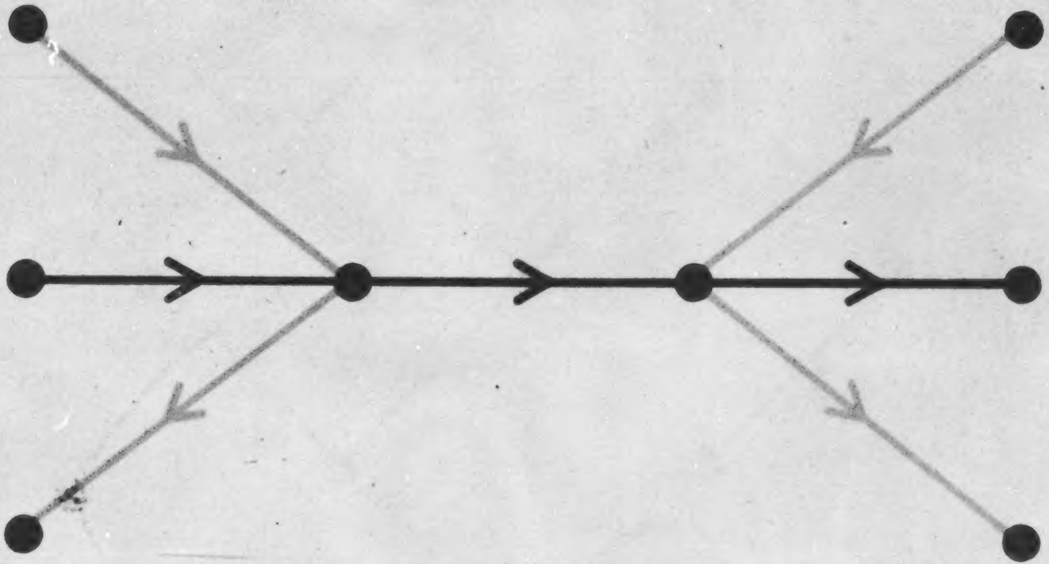
Name ______________________________

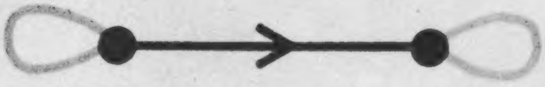
L 7 *

Draw the missing red arrows and green arrows.





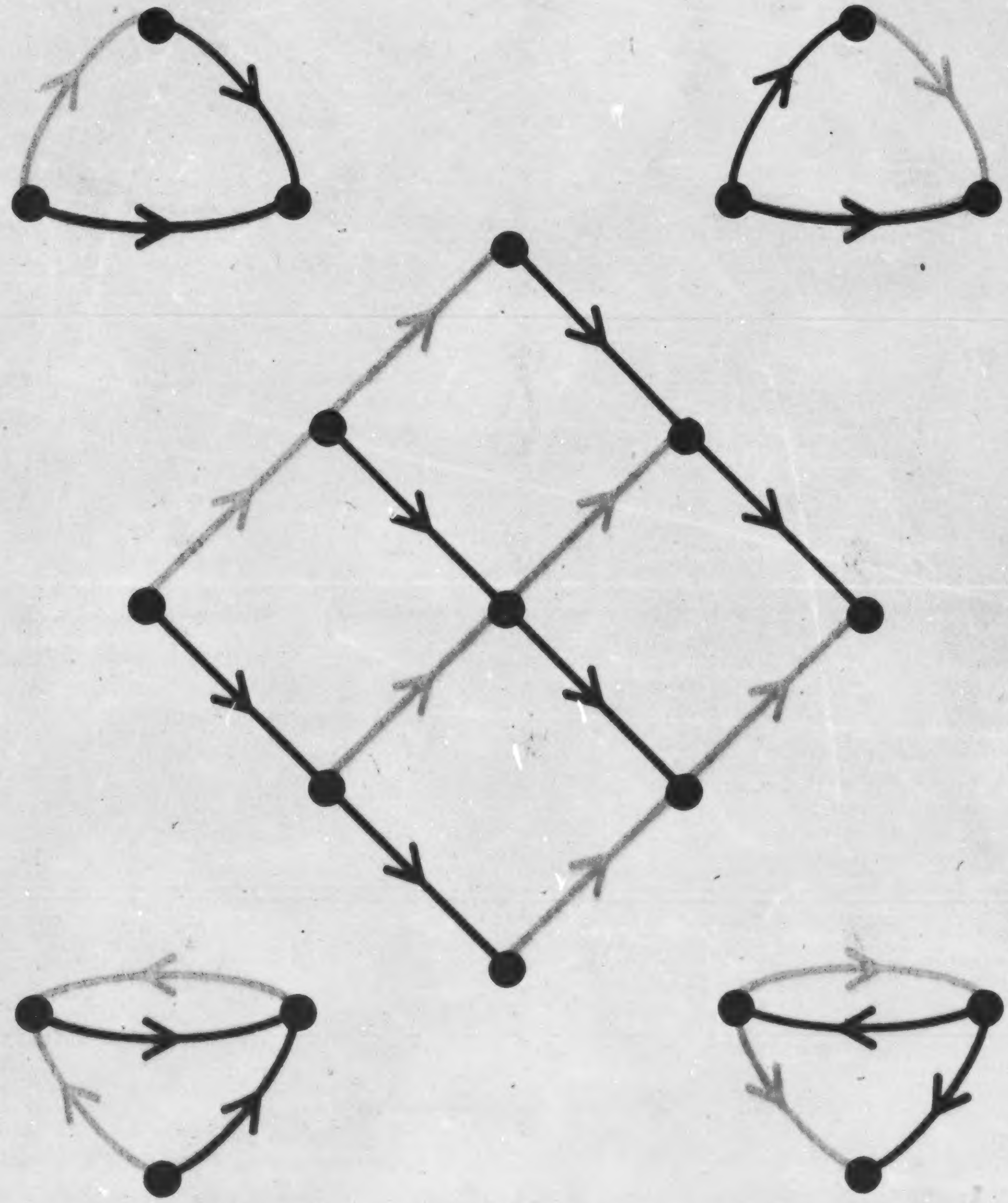




Name ______________________________

L 7 **

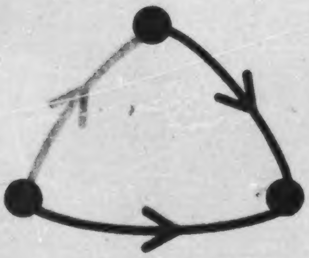
Draw the missing red arrows and loops. Draw the missing green arrows and loops.

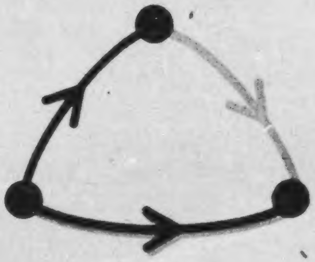


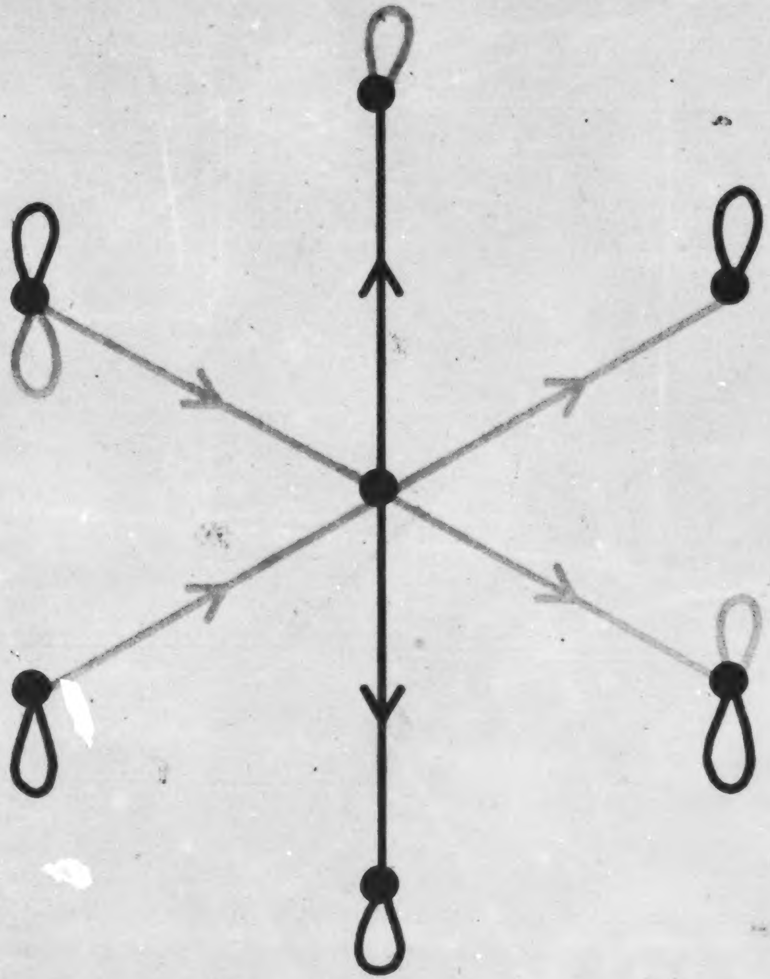
Name ______________________

L 7 ***

Draw the missing red arrows and loops. Draw the missing green arrows and loops.





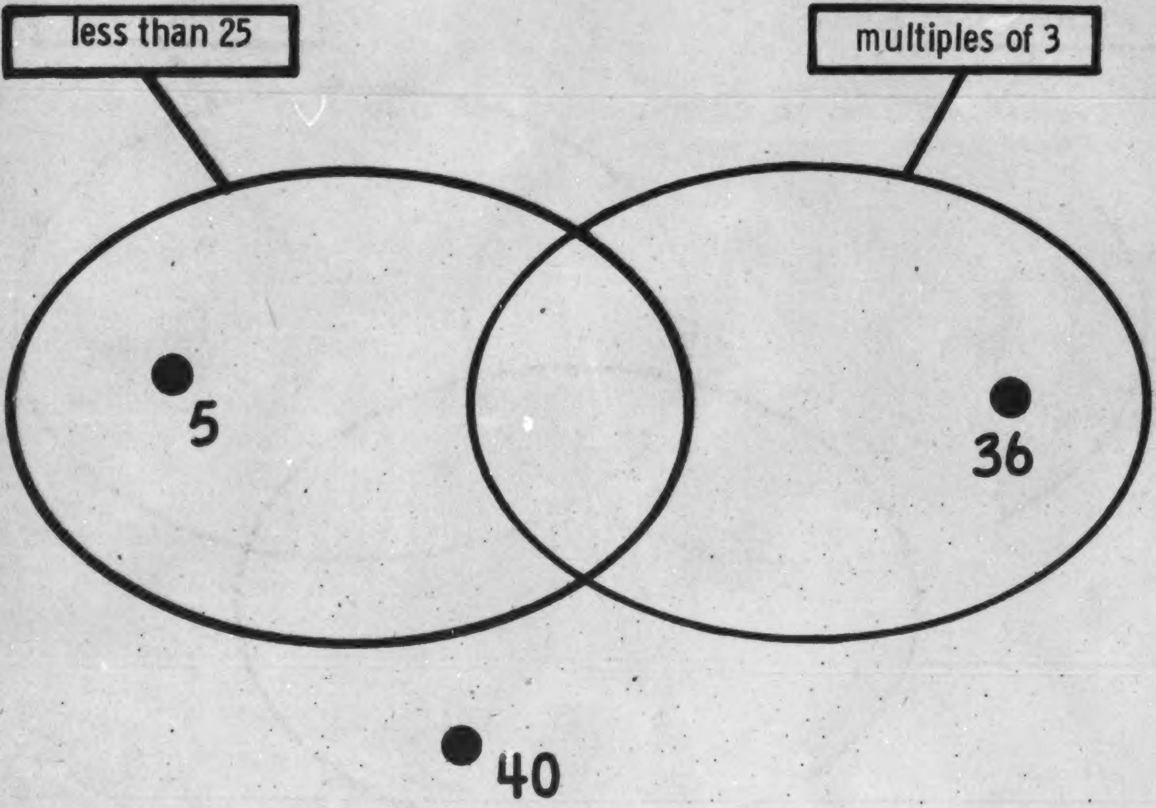


Name ______________________

L 9 *

Put these numbers in the string picture.

3 8 12 15 24 25 30 35

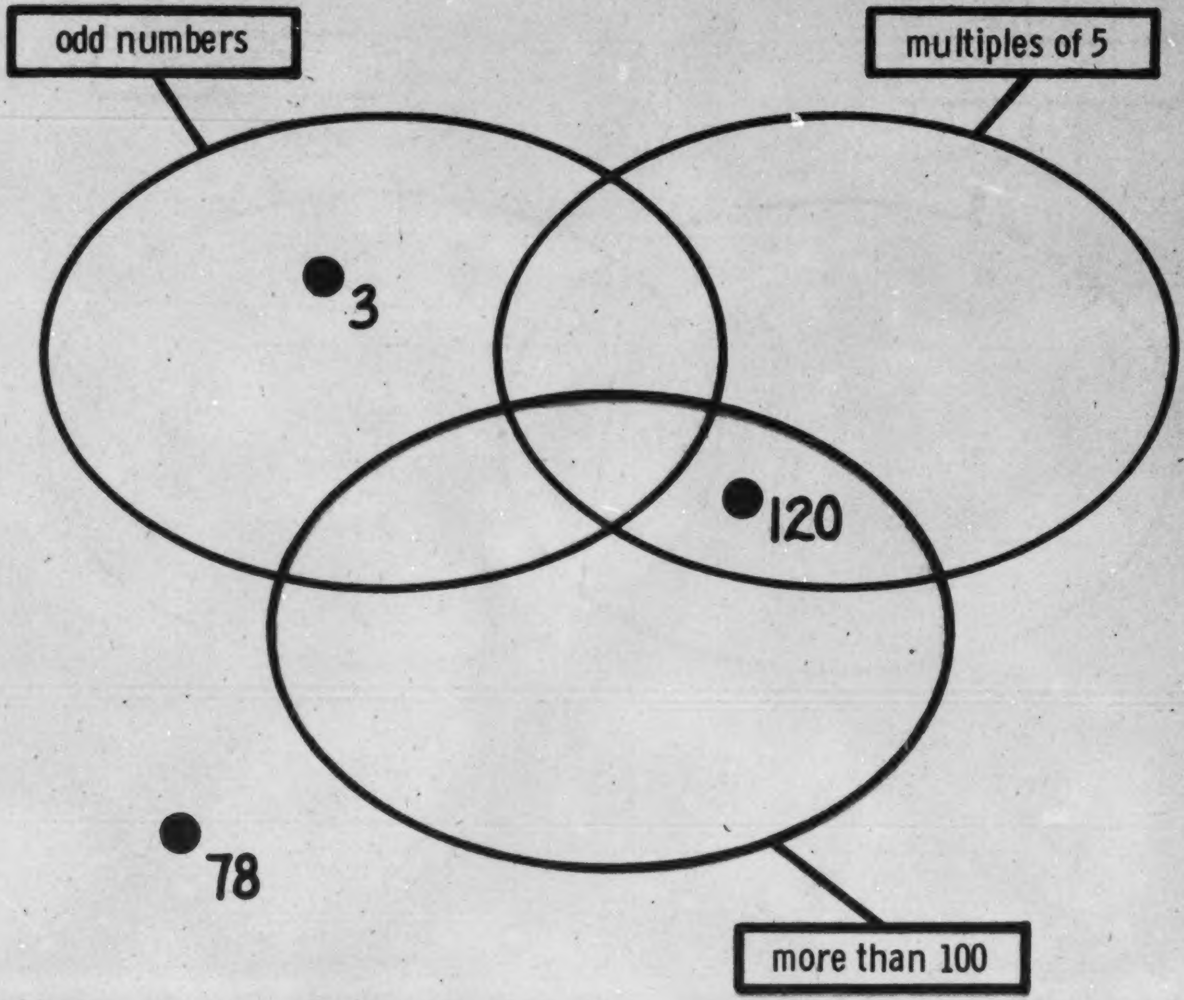

less than 25
multiples of 3
5
36
40

Name ____________________

L 9 **

Put these numbers in the string picture.

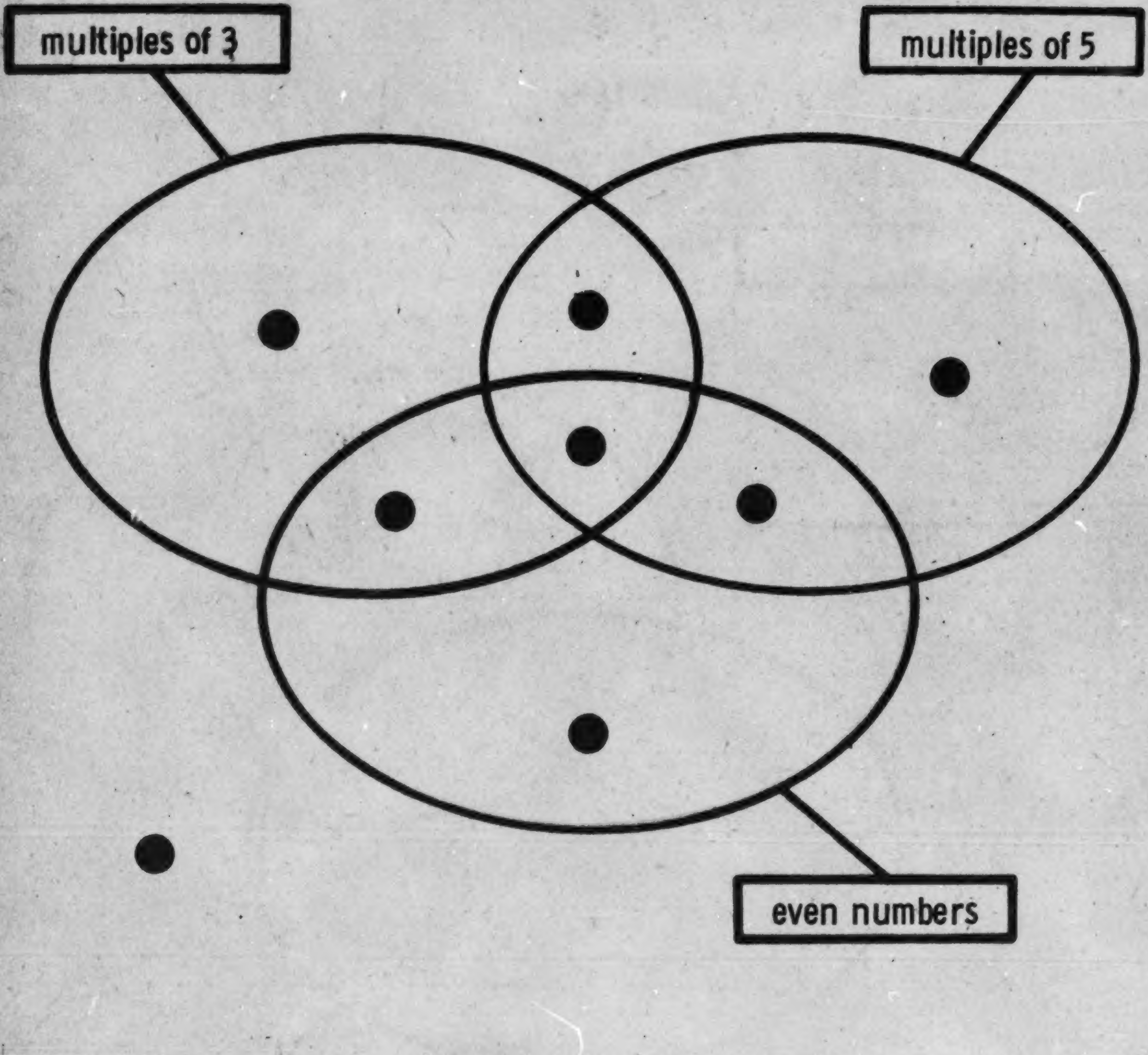
15 125 128 7 20 100 77 777


odd numbers
multiples of 5
more than 100
3
120
78

Name ______________________

L 9 ***

Label the dots with your choice of numbers.


multiples of 3
multiples of 5
even numbers

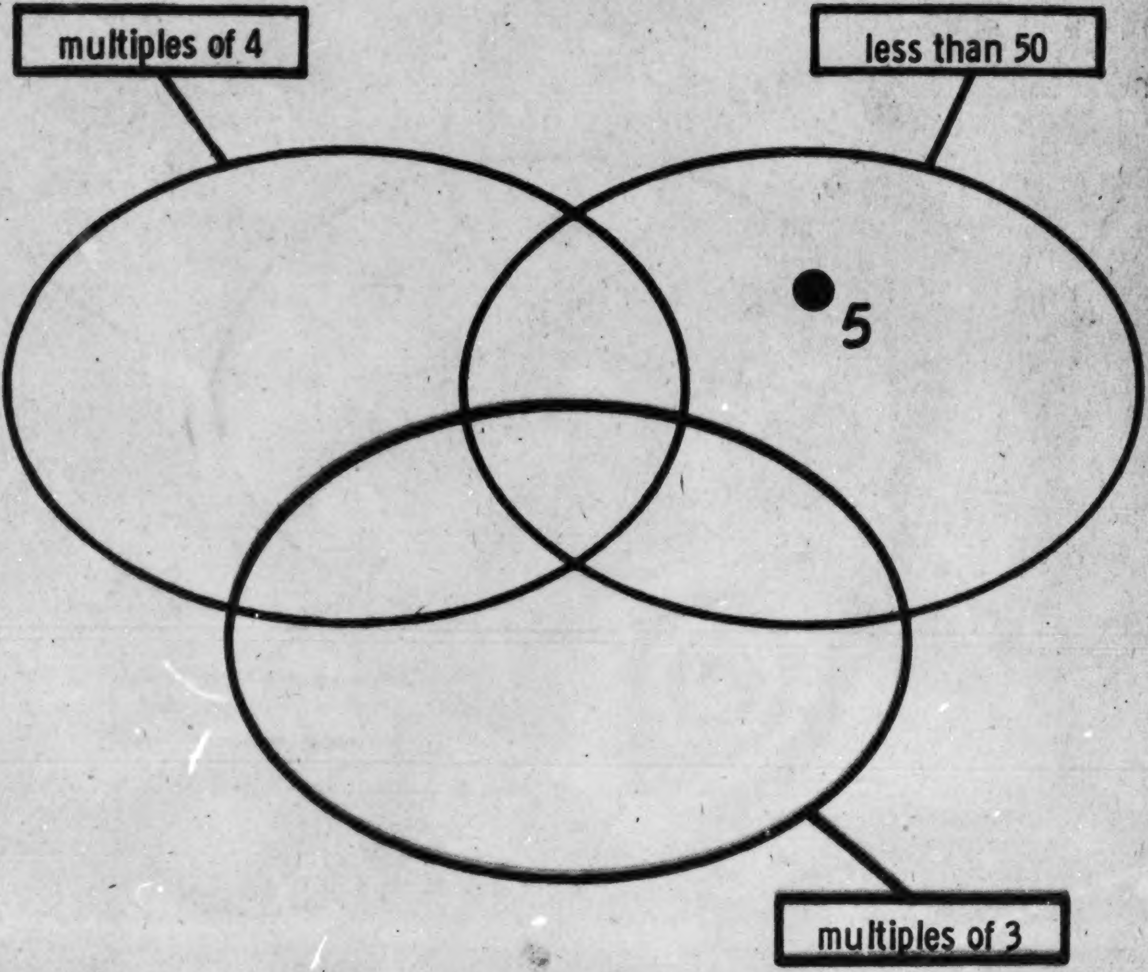
Name ______________________________

L 9 ****

Put these numbers in the string picture.

20 0 12 120 $\widehat{12}$ $\hat{6}$ $\hat{4}$ 99 50 56

3 × 25 4 × 6 4 × 7


multiples of 4
less than 50
5
multiples of 3

Name ____________________

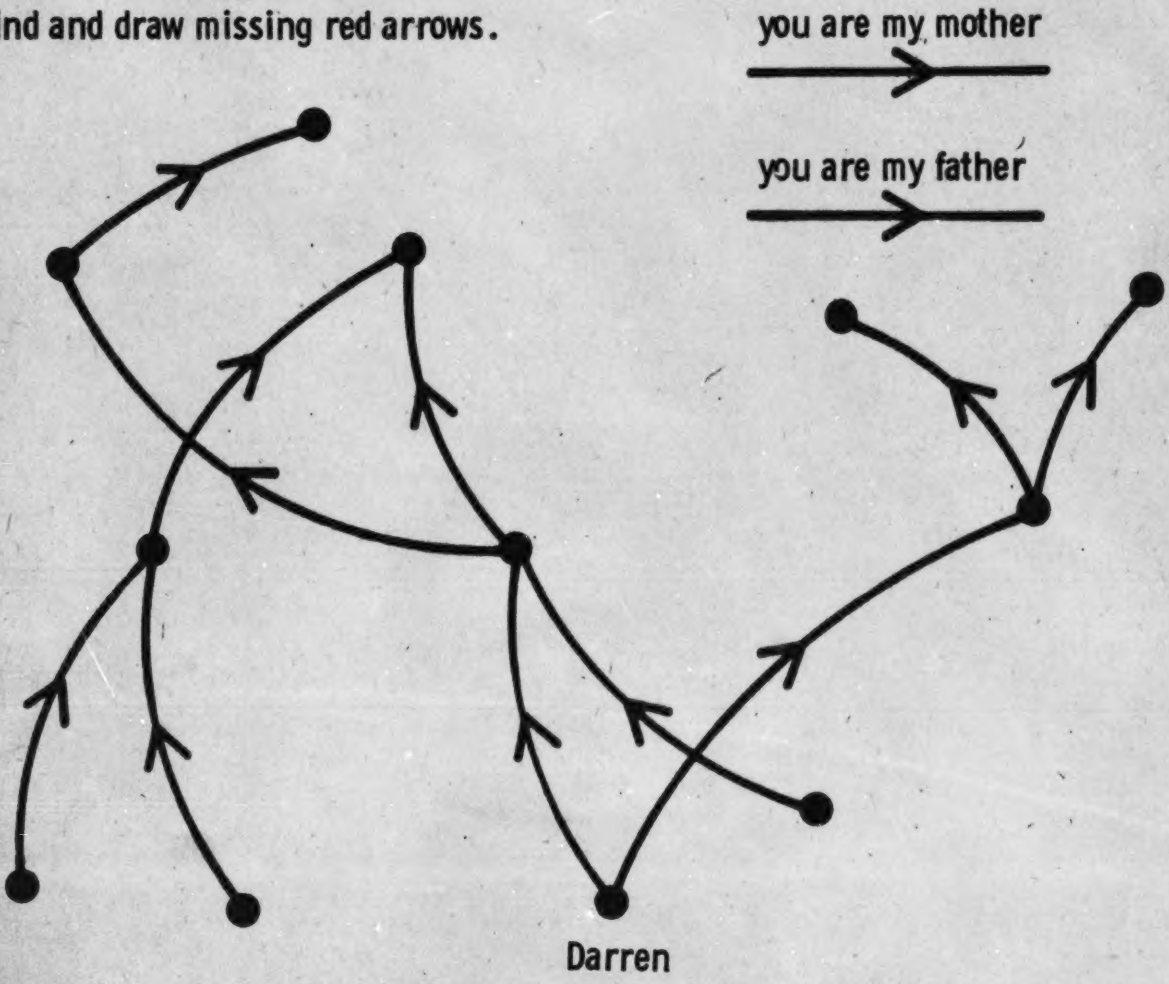
L 11 *

The dots in this arrow picture are for some of Darren's relatives:

- his mother
- his father
- his sister
- his aunt
- two cousins (two dots)
- his paternal grandfather
- his paternal grandmother
- his maternal grandfather
- his maternal grandmother
- one of his great-grandfathers

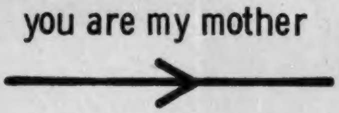
Can you label the dots?

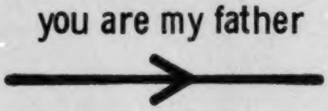
Find and draw missing red arrows.

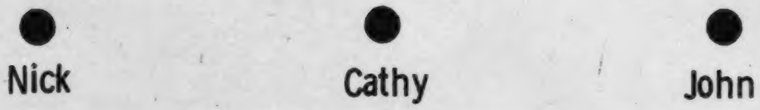

you are my mother
you are my father
Darren

Name ______________________________ **L 11** **

Cathy is the sister of Nick and John. Both of Cathy's paternal grandparents and her maternal grandfather are still alive, but the mother of Cathy's mother died last year. Draw an arrow picture showing Cathy's family.


you are my mother


you are my father


Nick
Cathy
John

Name ______________________________

L 16 *

Draw dots in this string picture so that there are:

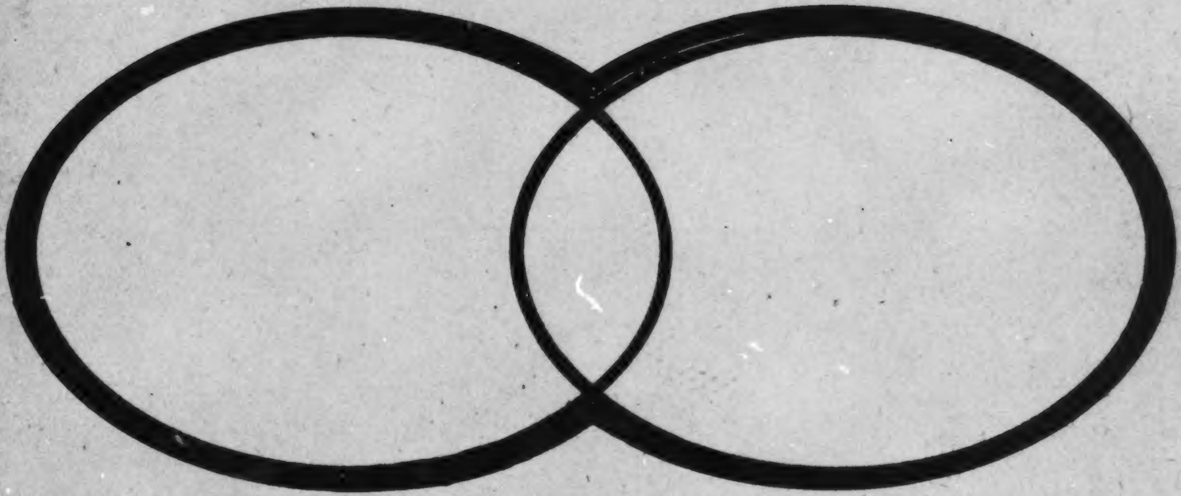
7 dots in the red string;

5 dots in the blue string;

10 dots altogether in the two strings.

7

5



10

Name ____________________

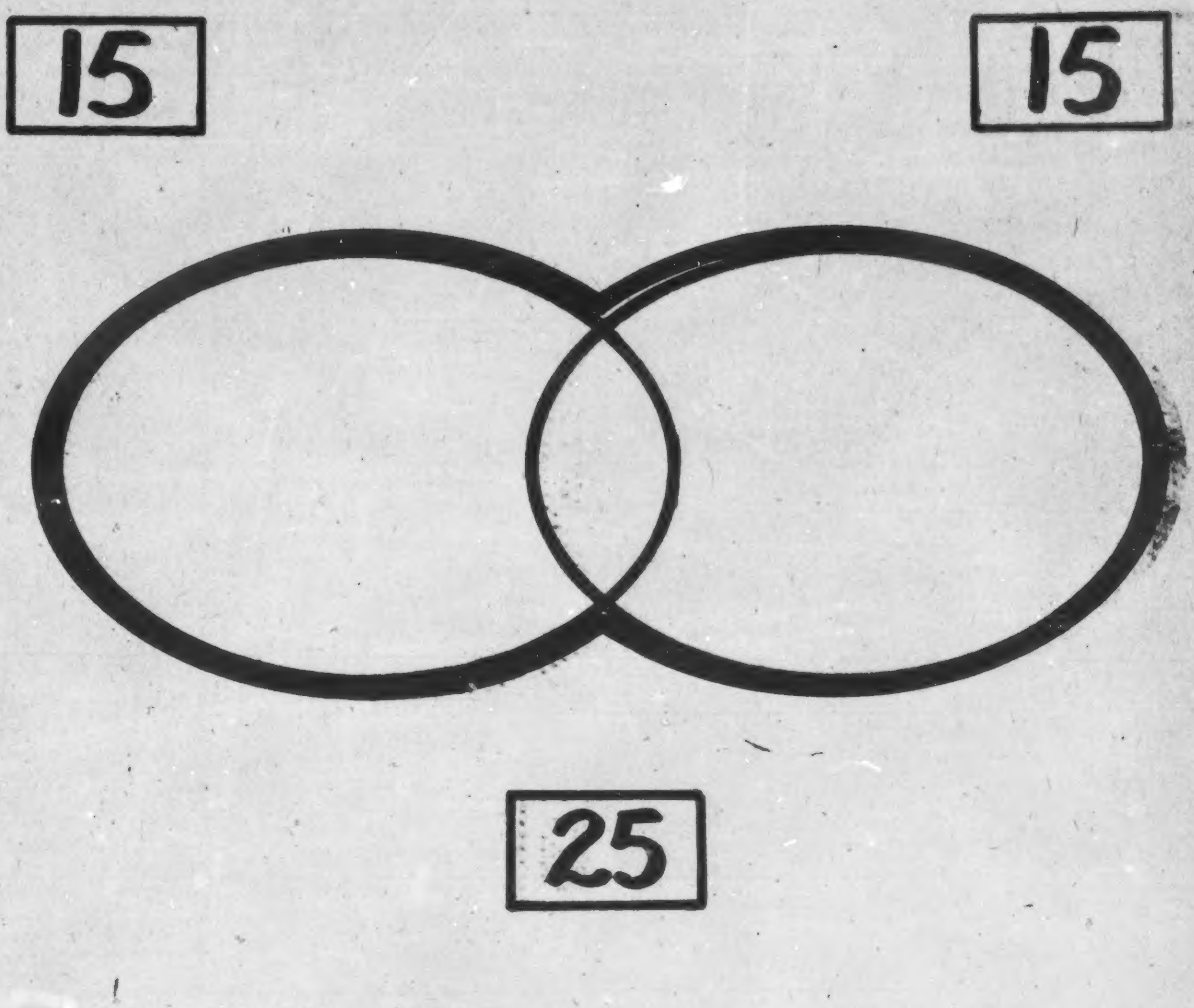
L 16 **

Draw dots in this string picture so that there are:

15 dots in the red string;

15 dots in the blue string;

25 dots altogether in the two strings.

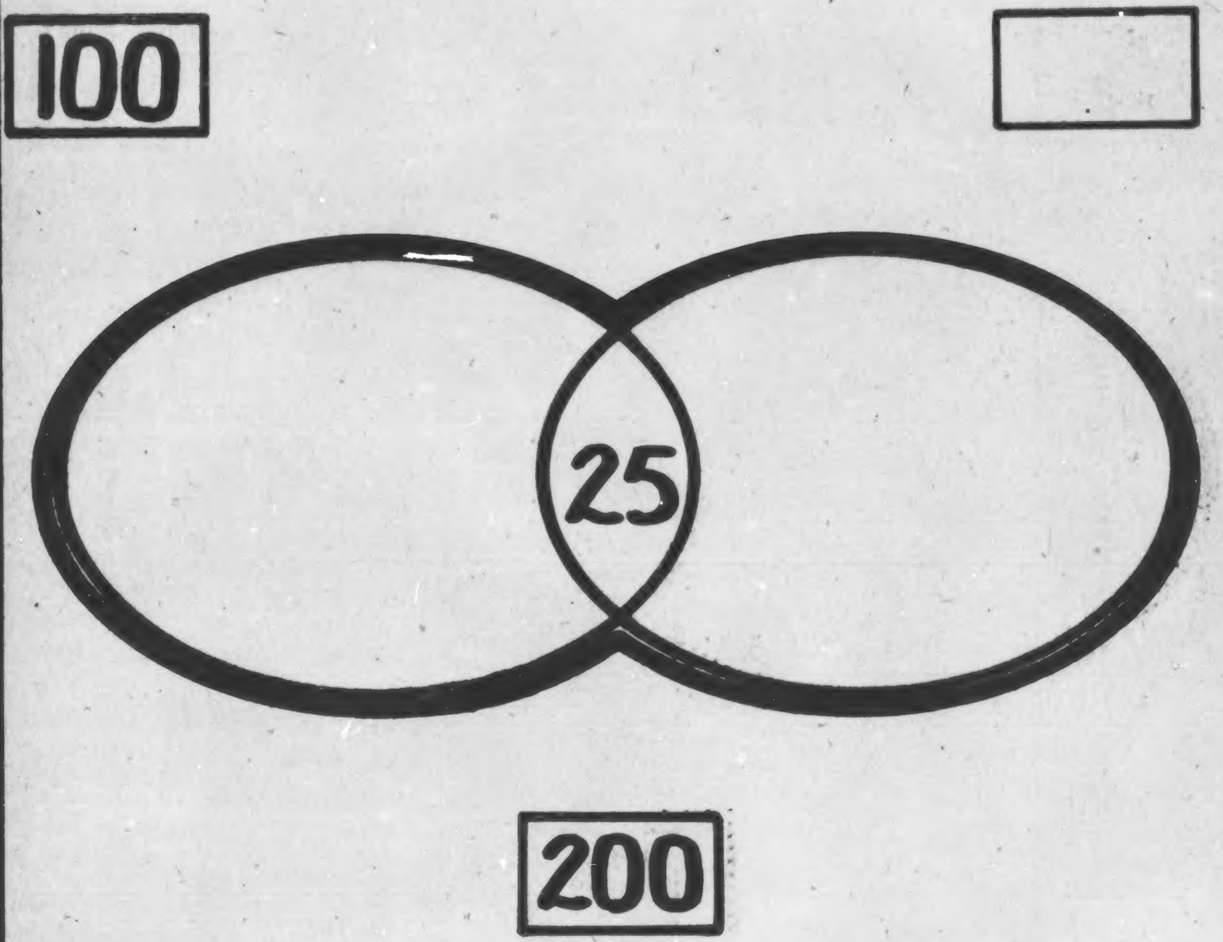


Name ______________________

L 16 ***

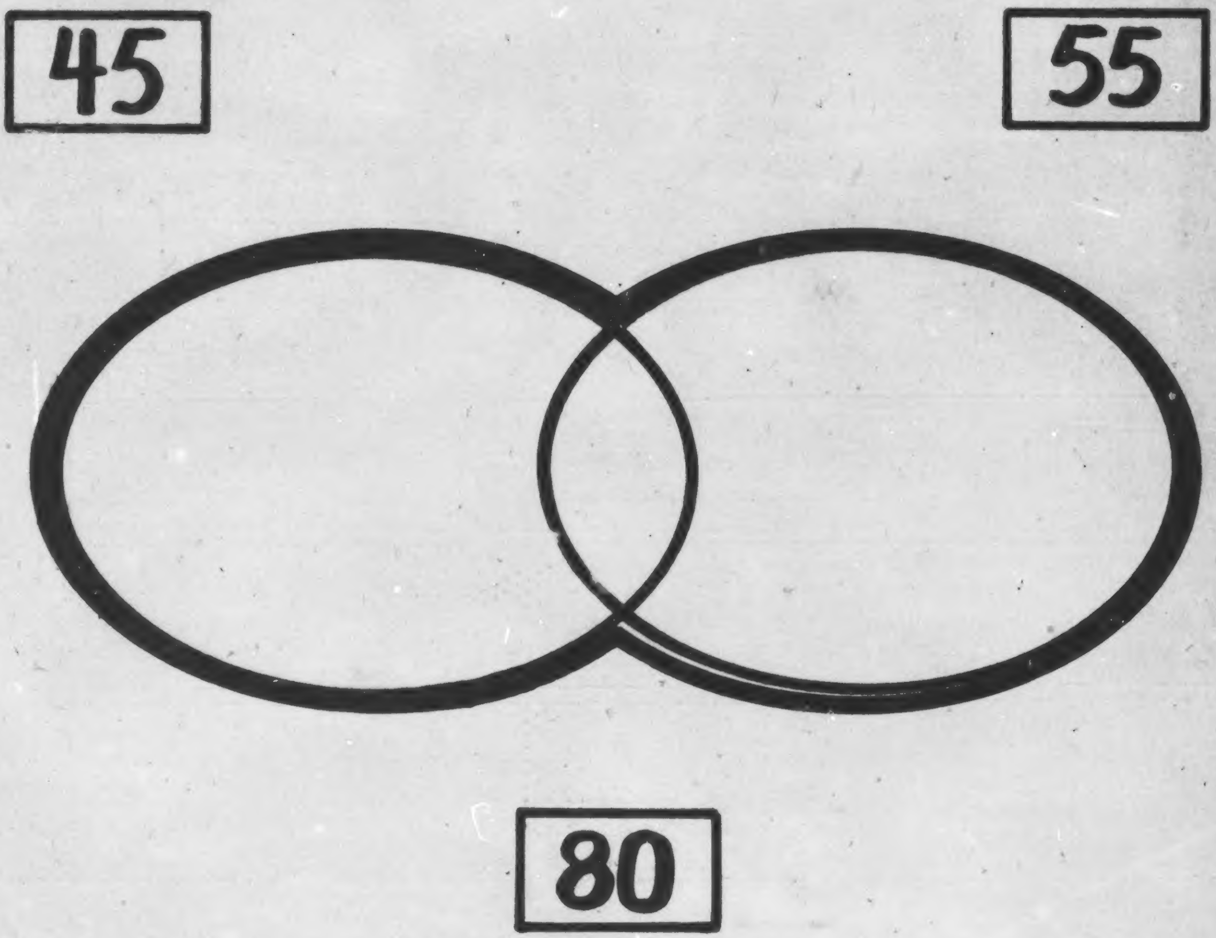
Label the parts of this picture to show how many dots are in each part.

Fill in the blue box to show how many dots are in the blue string.



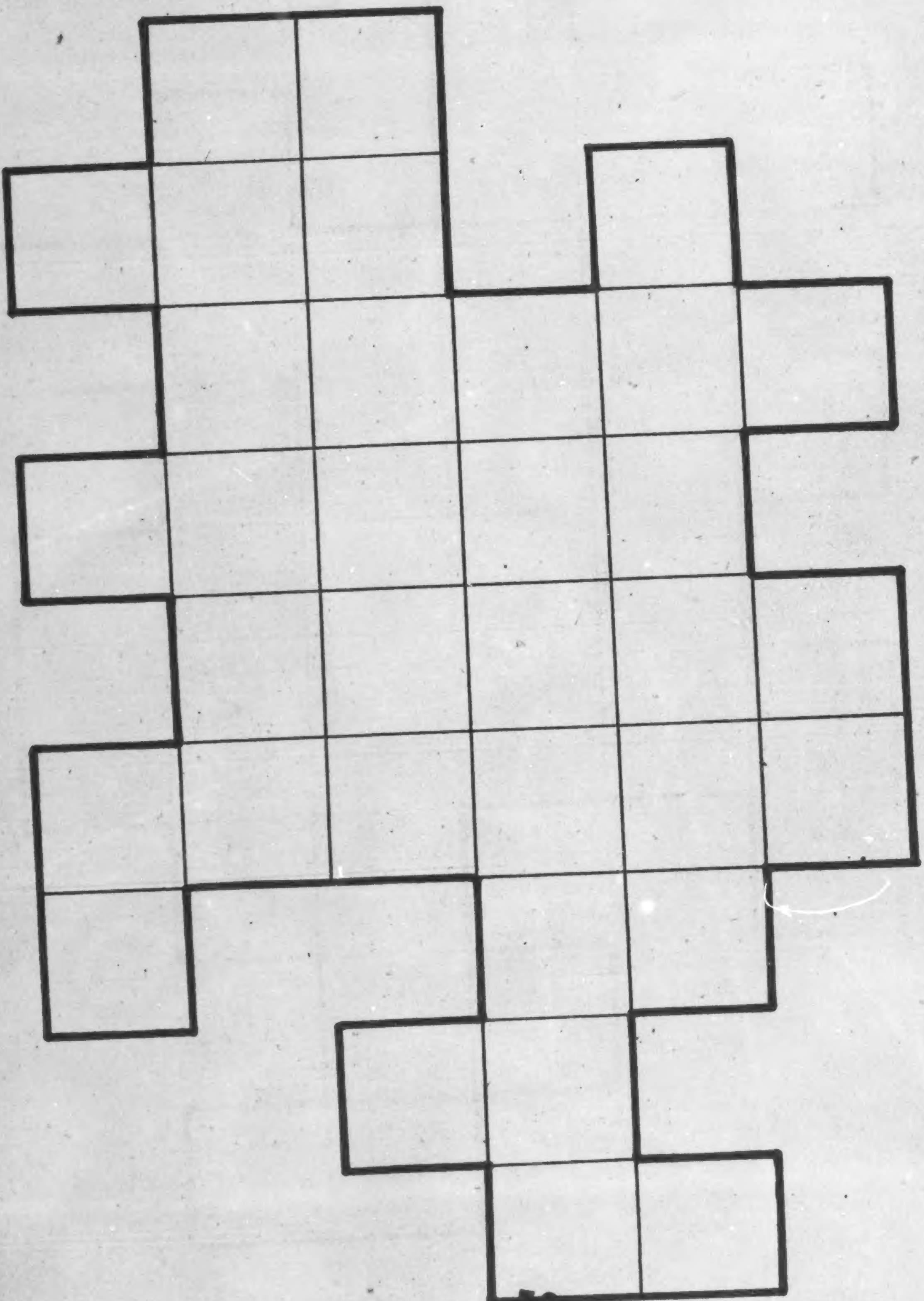
Name ______________________ **L 16 ******

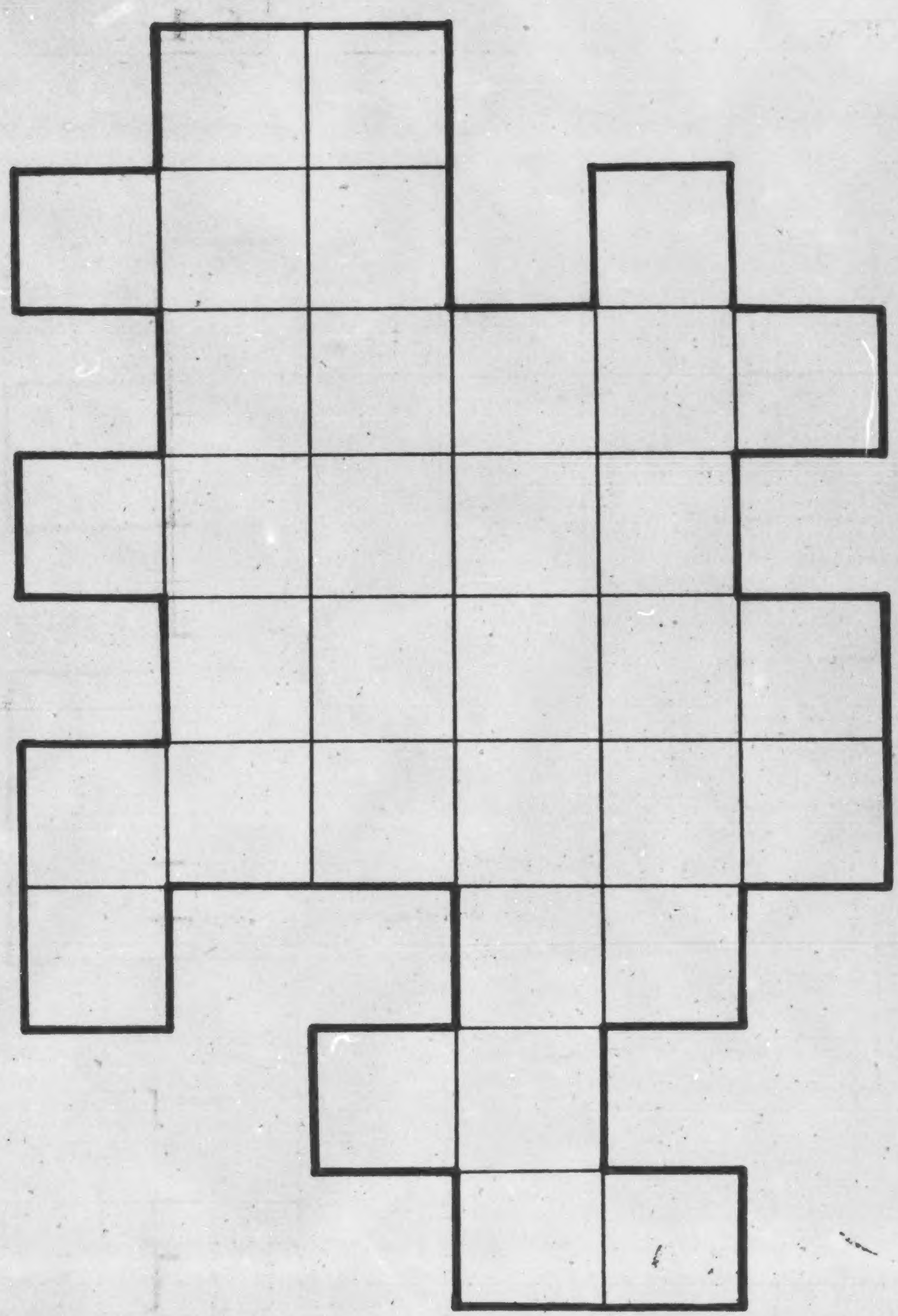
Label the parts of this picture to show how many dots are in each part.



Name ____________________

G 1 *

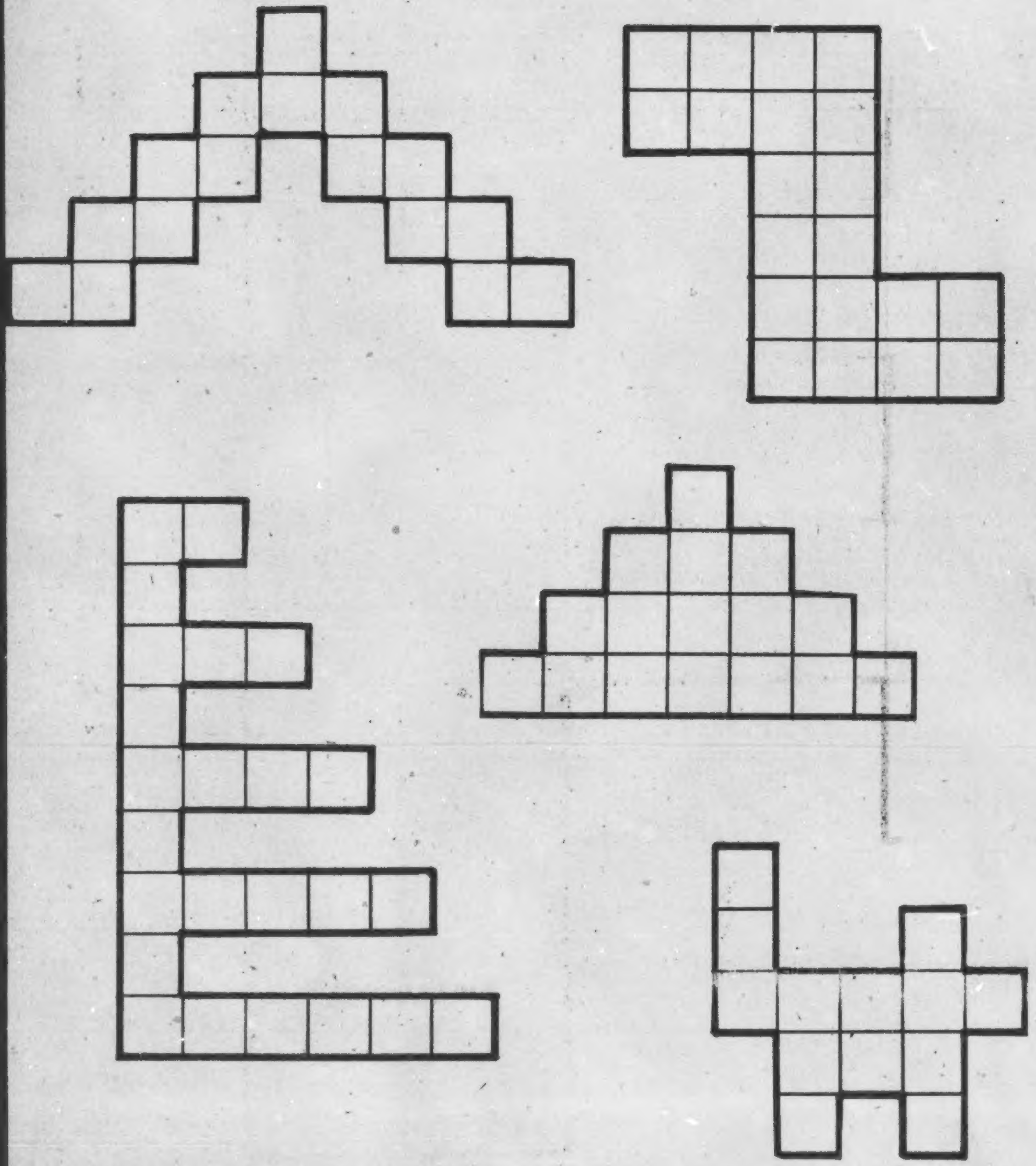




Name ______________________

G 1 **

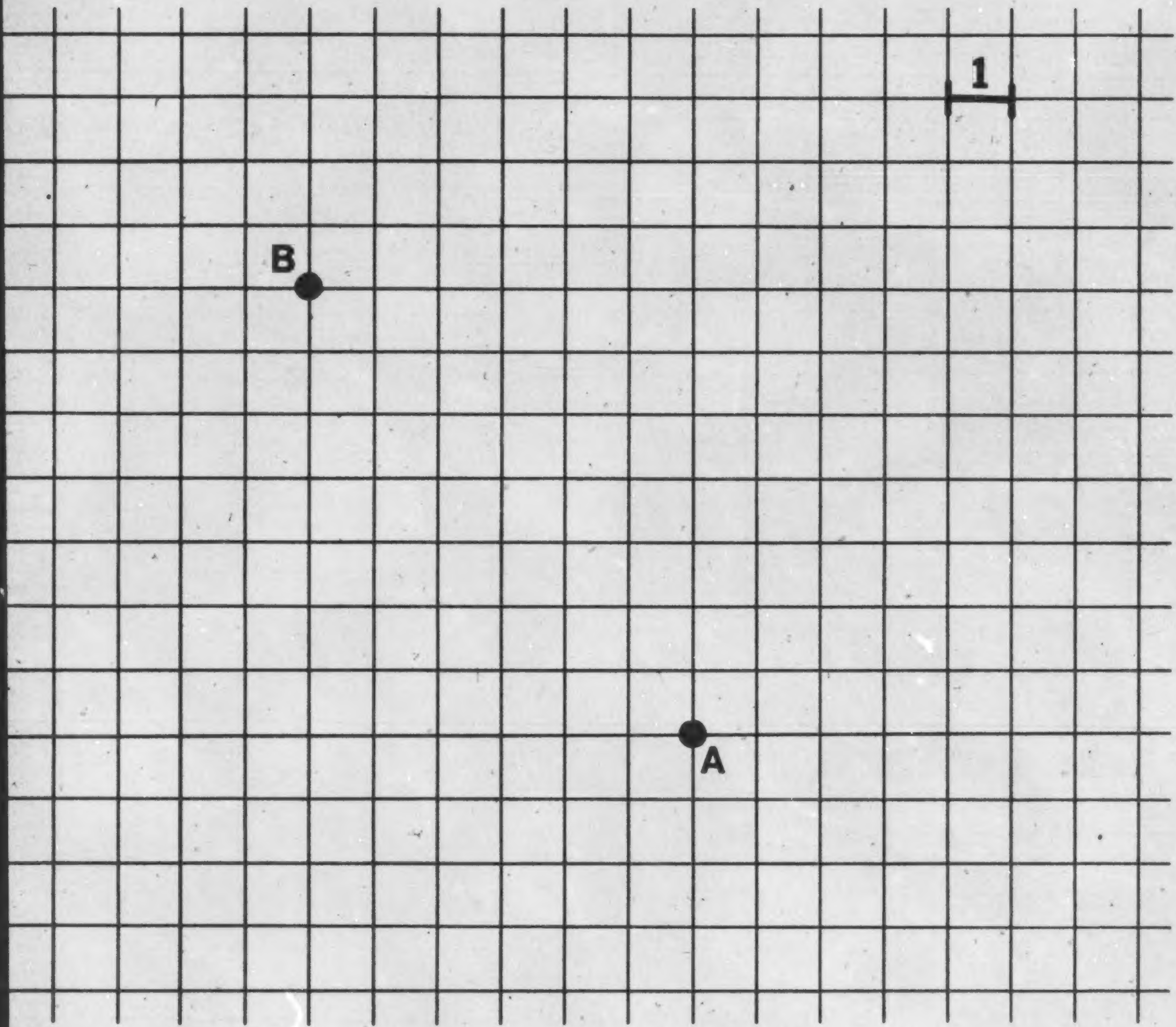
Color each shape one-half red and one-half blue.



Name ______________________

G 2 *

Draw one long path between Angela's house (A) and Barbara's house (B). Draw several shortest paths between A and B. Use a different color for each path.



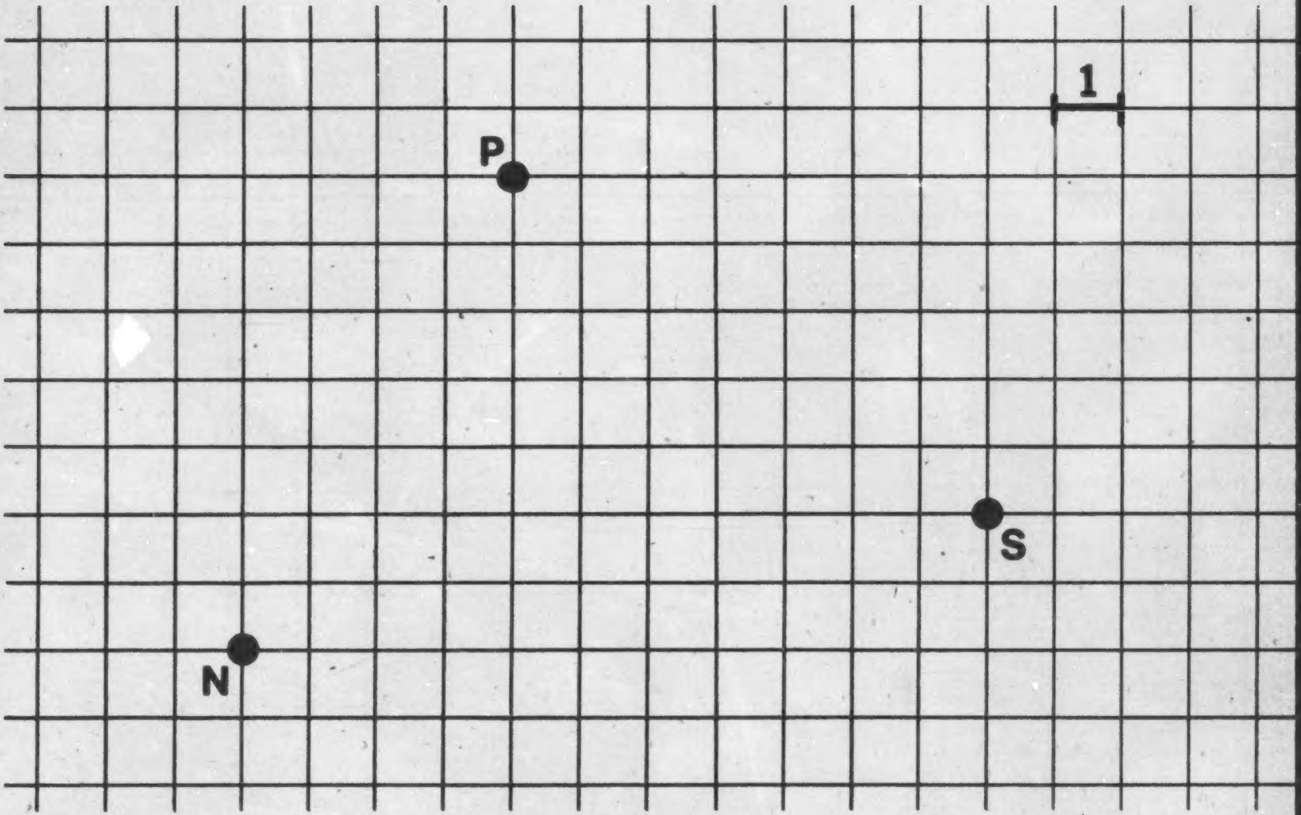
The taxi-distance from A to B is ________ blocks.

The taxi-distance from B to A is ________ blocks.

Name ______________________________

G 2 **

N = Nora's House P = Post Office S = Store



The taxi-distance from N to P is __________ blocks.

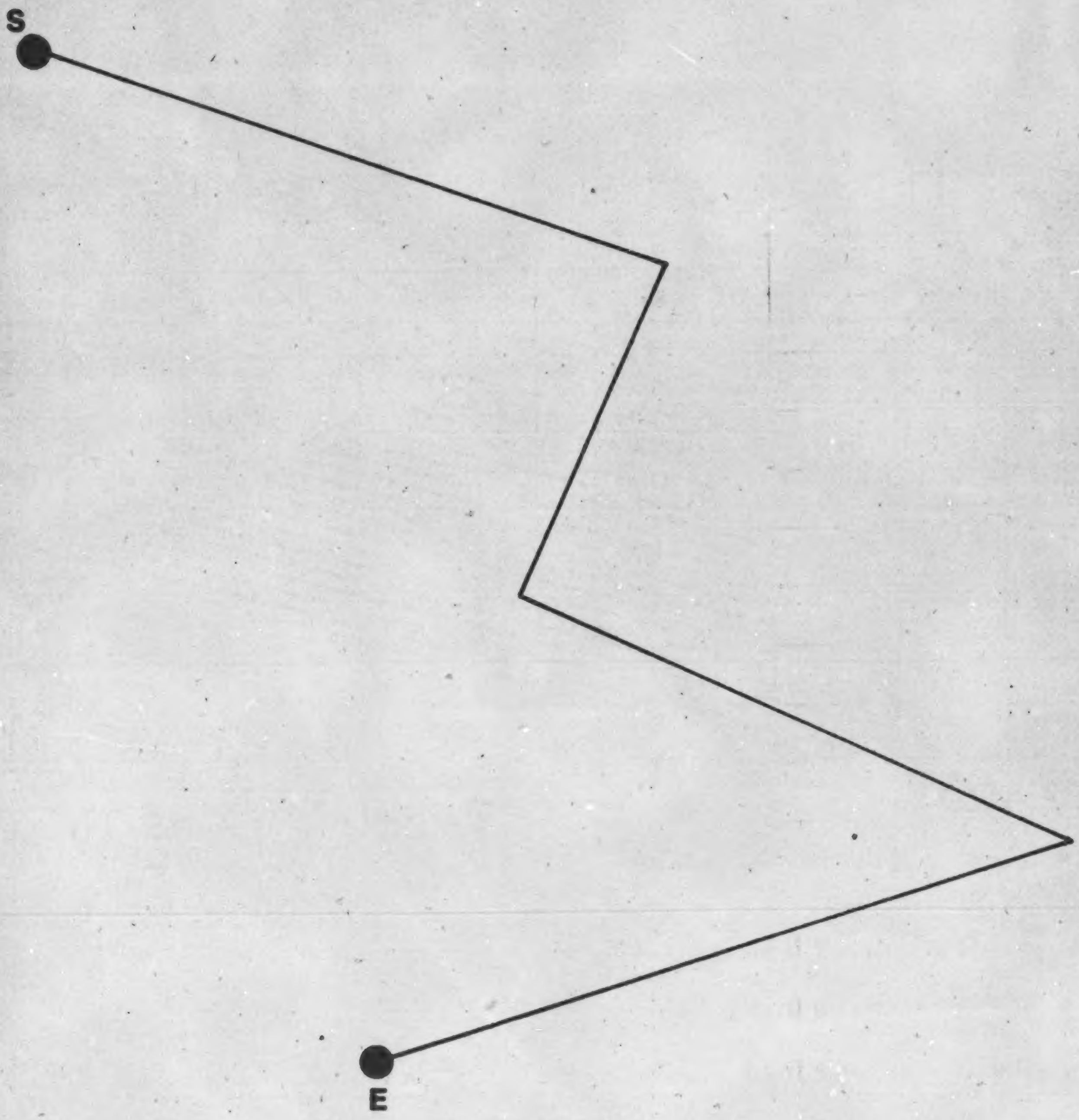
The taxi-distance from P to S is __________ blocks.

The taxi-distance from S to N is __________ blocks.

It is raining and Nora must do some errands. She walks from her house (N) to the Post Office (P) and then to the store (S) and then home. What is the length of the shortest trip she can make? ______________

Name ______________________

G 3 *



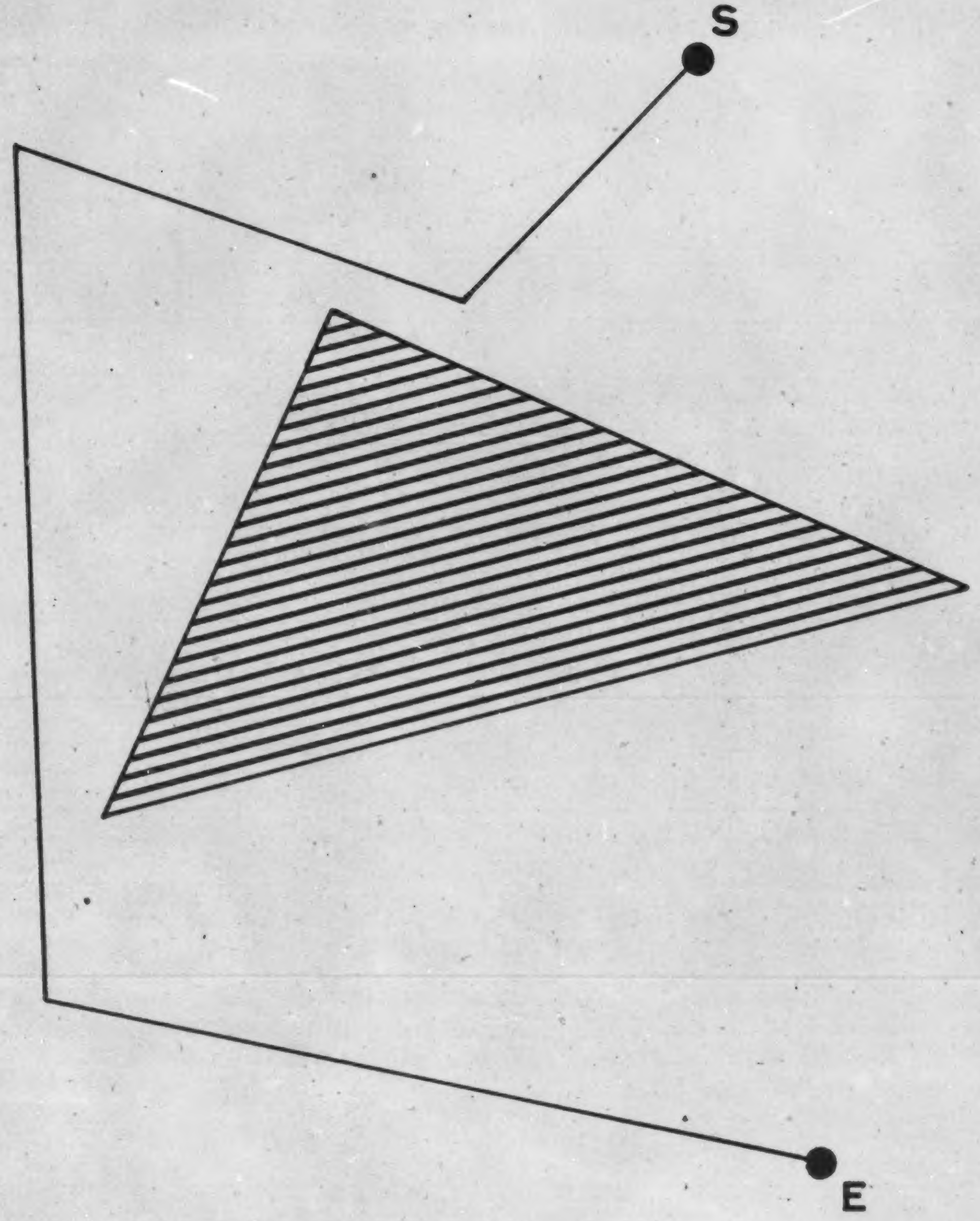
How long is this zigzag from S to E? ____________ cm

Draw a shorter path from S to E. Try to make it as short as possible.

How long is your path? ____________ cm

Name ______________________________

G 3 **



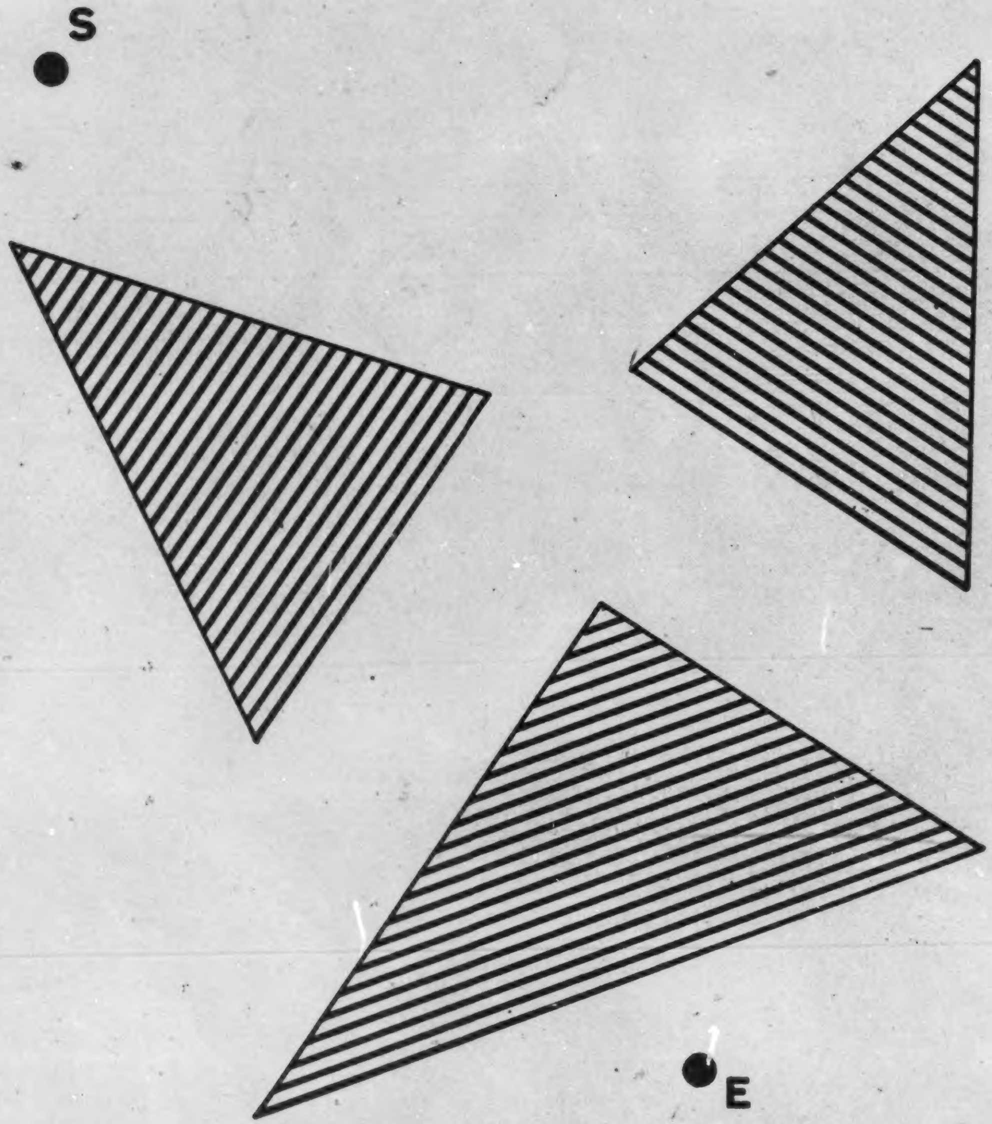
How long is this zigzag from S to E? ____________ cm

Draw a shorter path from S to E. Try to make it as short as possible.

How long is your path? ____________ cm

Name ______________________________

G 3 ***



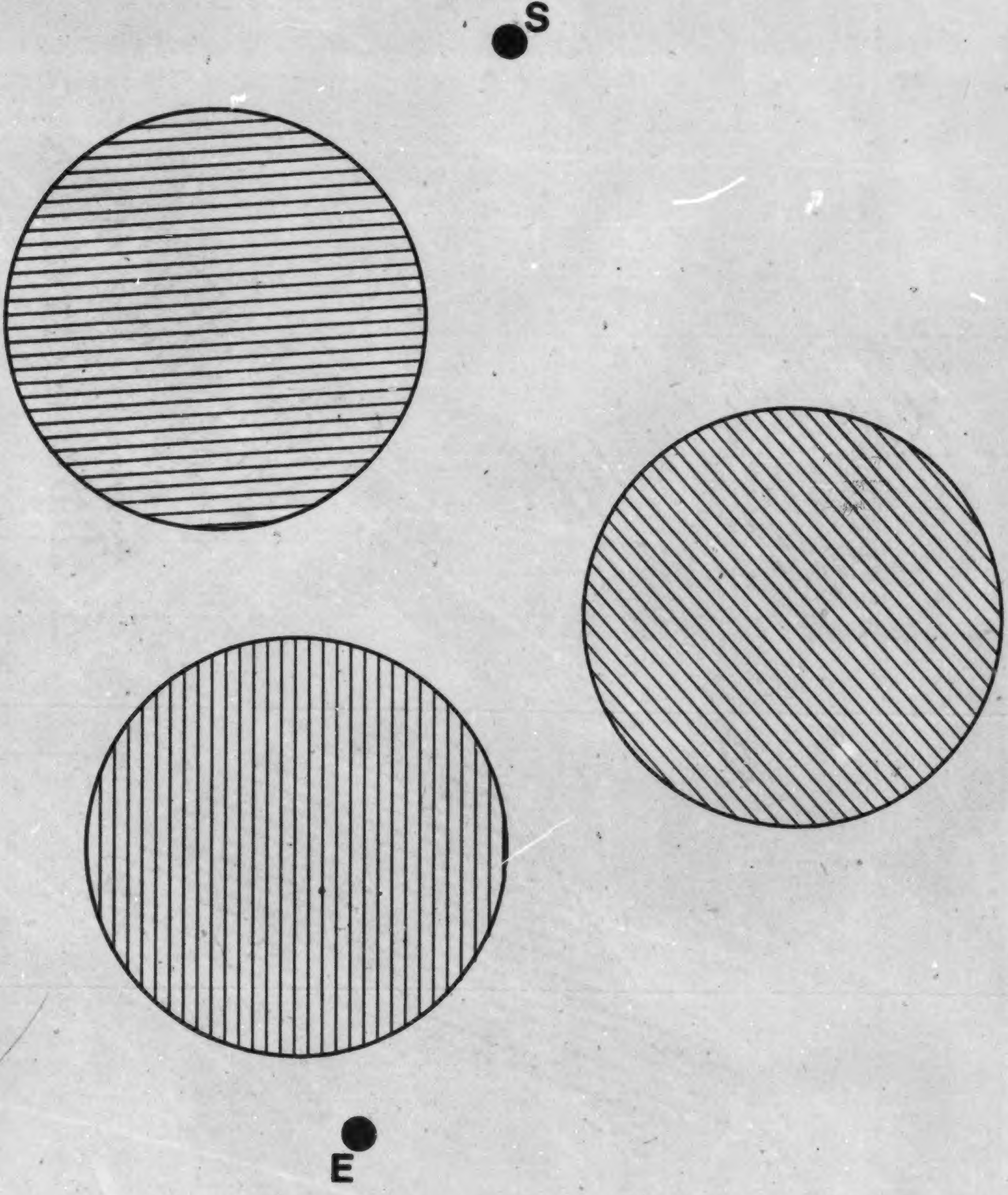
Draw as short a zigzag path as you can from S to E.

Try to make it shorter than 25 cm.

How long is your zigzag? ______________ cm

Name ______________________________

G 3 ****



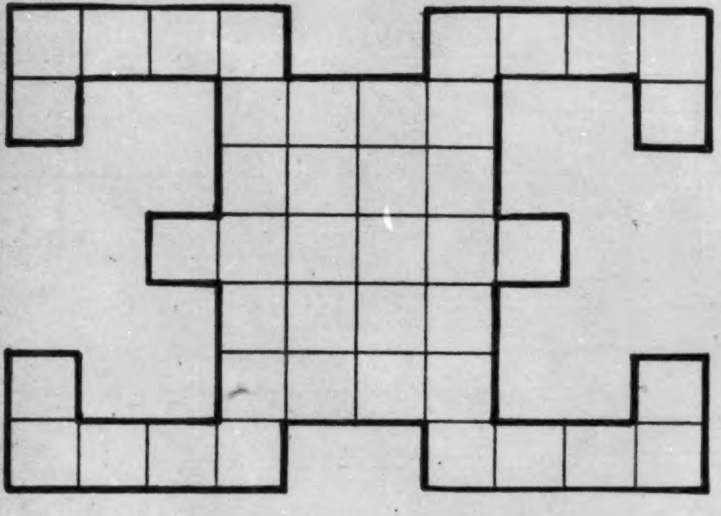
Draw a zigzag path from S to E which is longer than 50 cm.

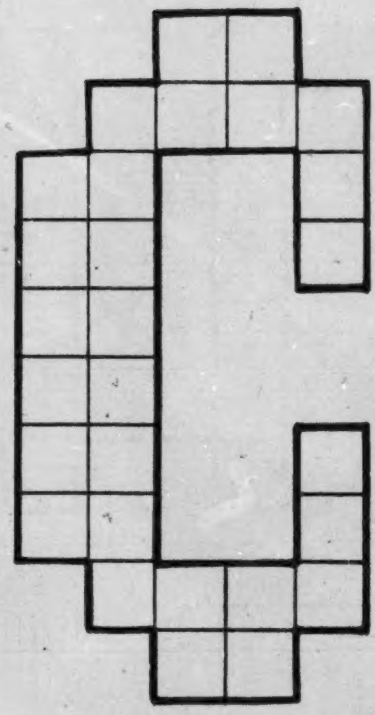
How long is your zigzag? ____________ cm

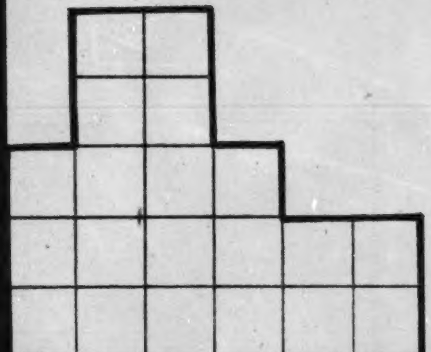
Name ____________________

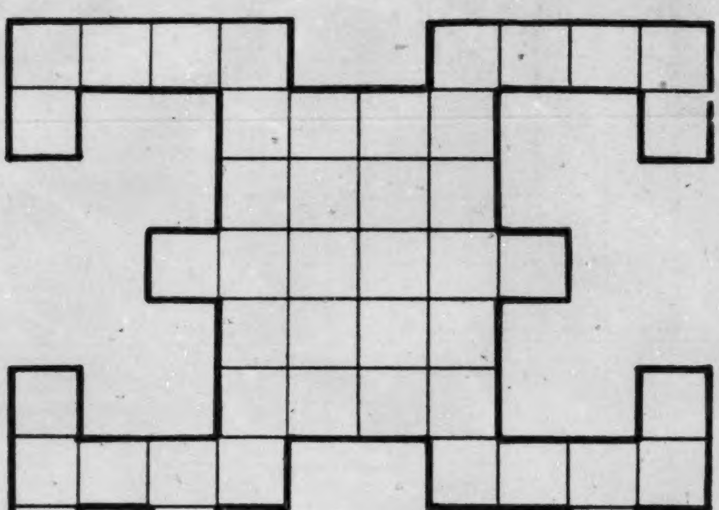
G 4 *

Color each shape one-half red and one-half blue.





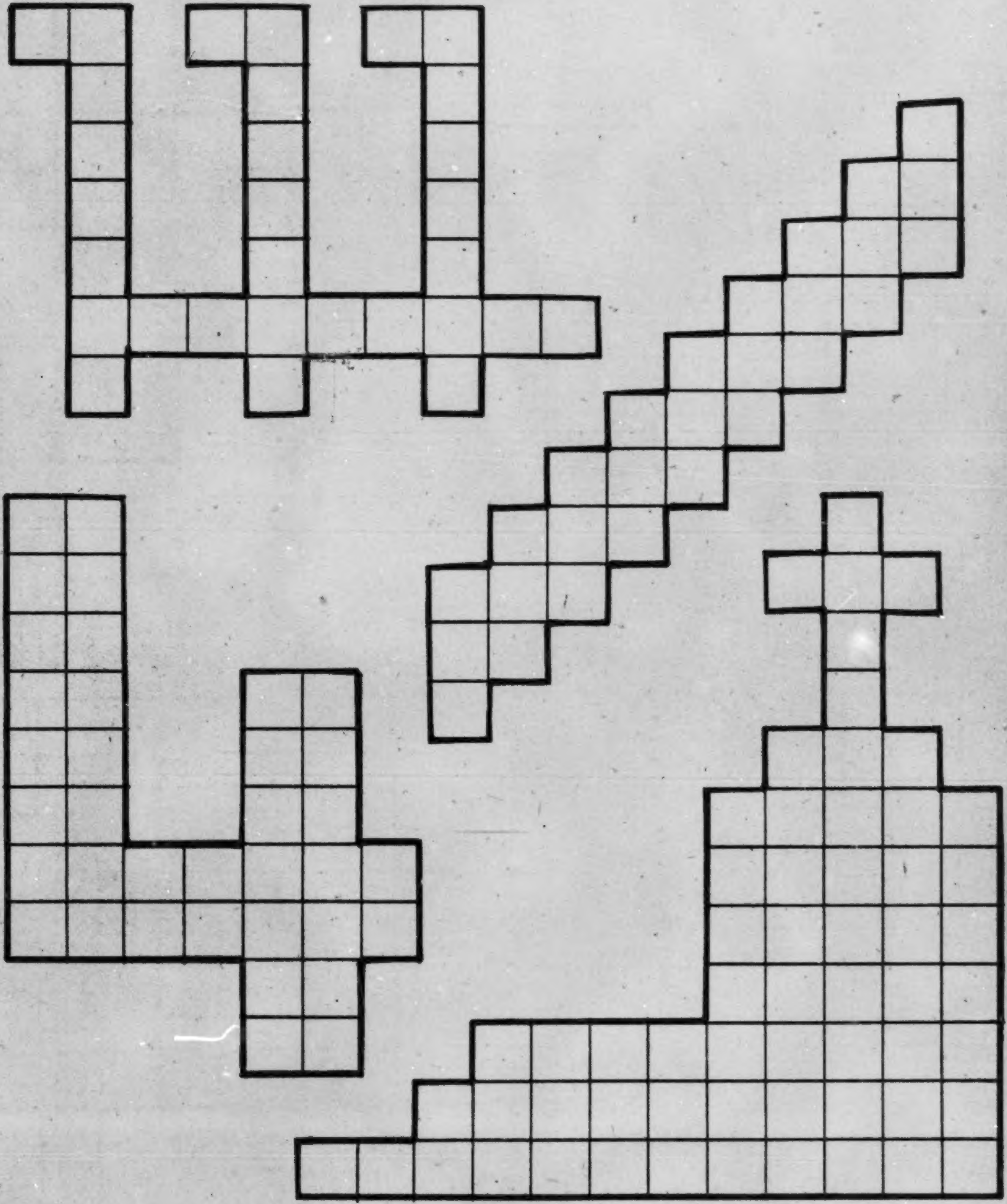




Name ____________________

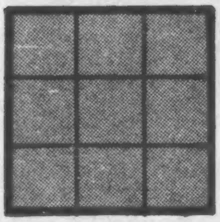
G 4 **

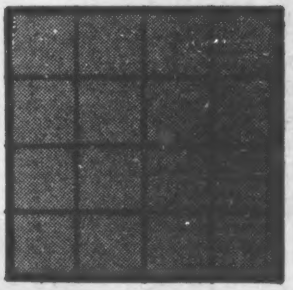
Color each shape one-third red, one-third blue, and one-third green.

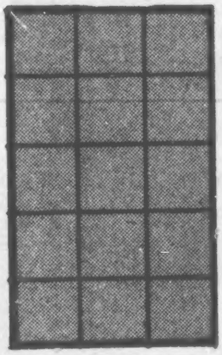


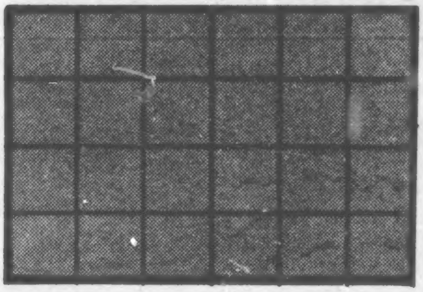
Name ______________________

G 5



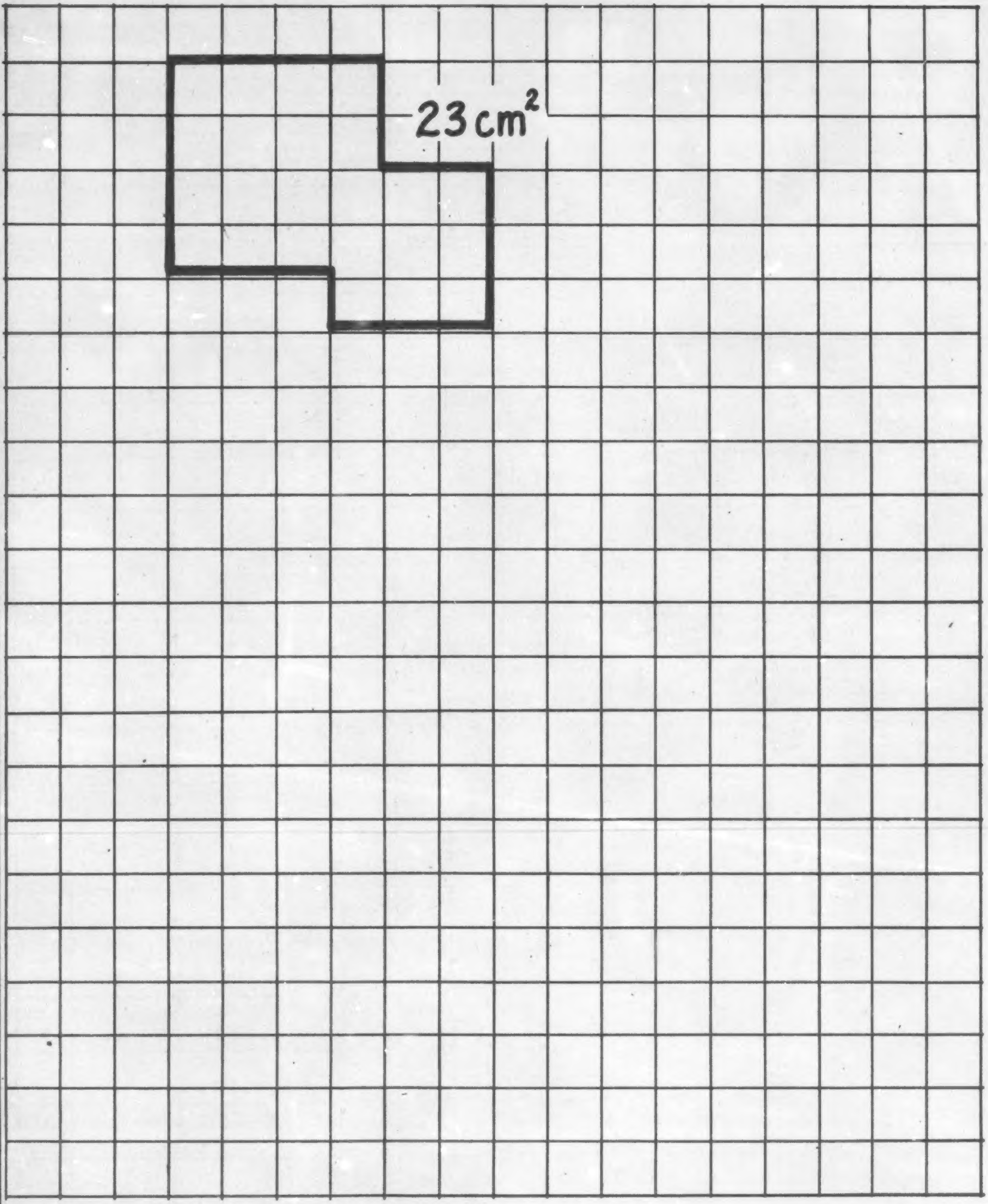






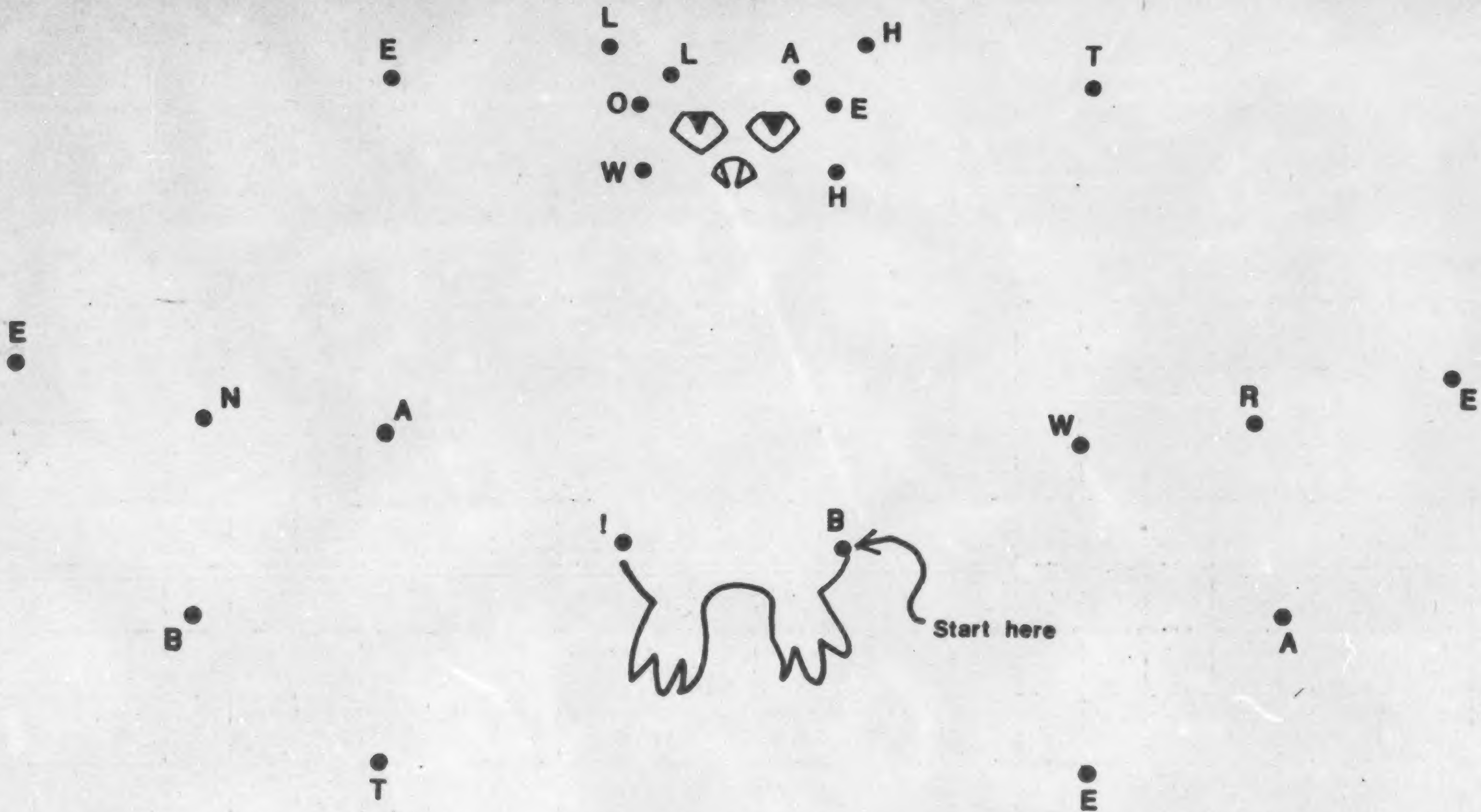
Name ______________________________

G 5 *



Name ______________________

G 5 **


L
E
L
A
H
T
O
E
W
H
E
N
A
W
R
E
!
B
B
A
T
E

Start here

B _ _ _ _ _   _ _ _   _ _ _ _ _ _ _ _ _   _ _ _ _

5cm 5cm 4cm 3cm 3cm 7cm 4cm 1cm 1cm 1cm 2cm 1cm 1cm 1cm 4cm 7cm 3cm 3cm 4cm 5cm 5cm

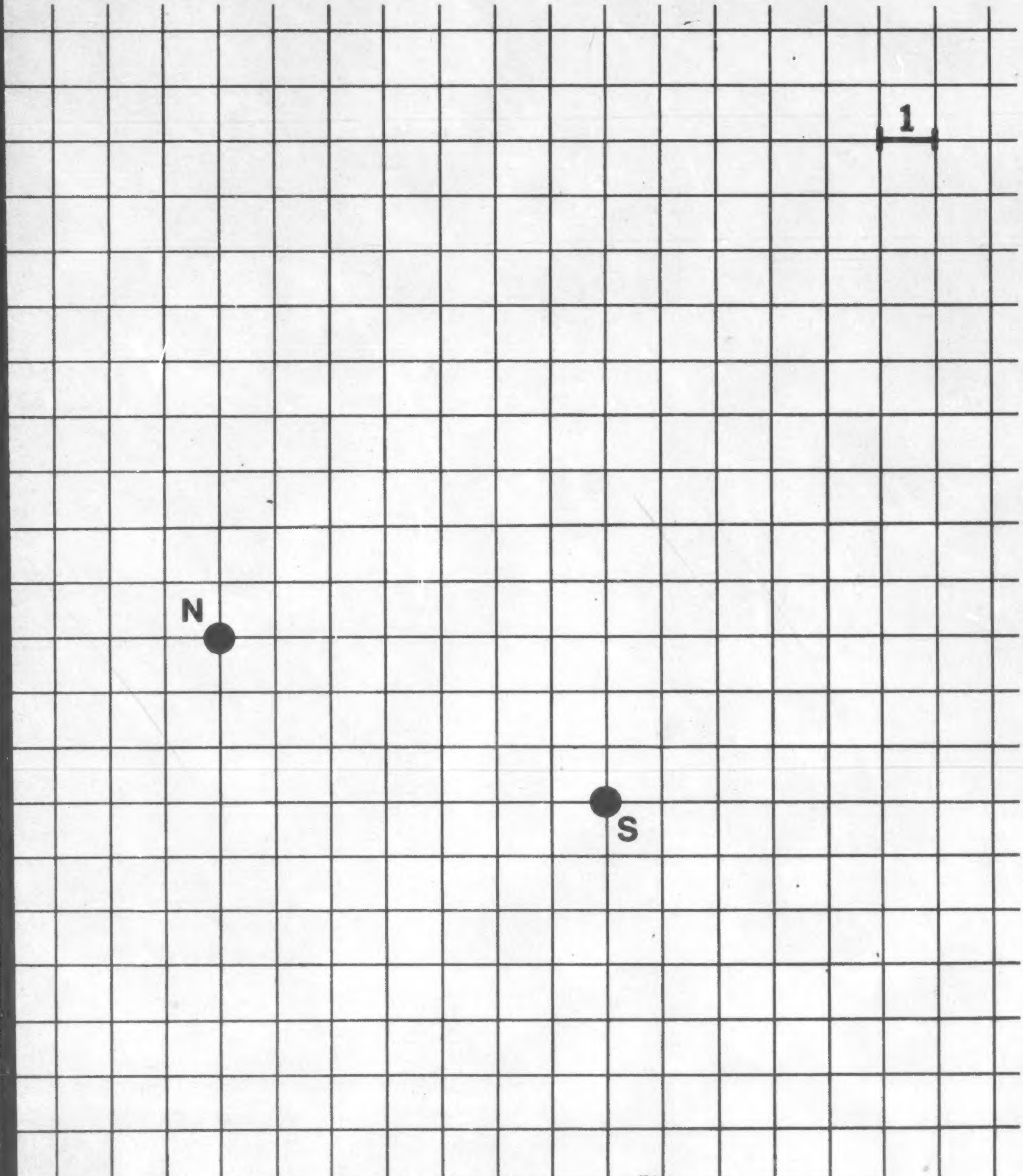
Name ____________________

G 6

Name ______________________________

G 7 *

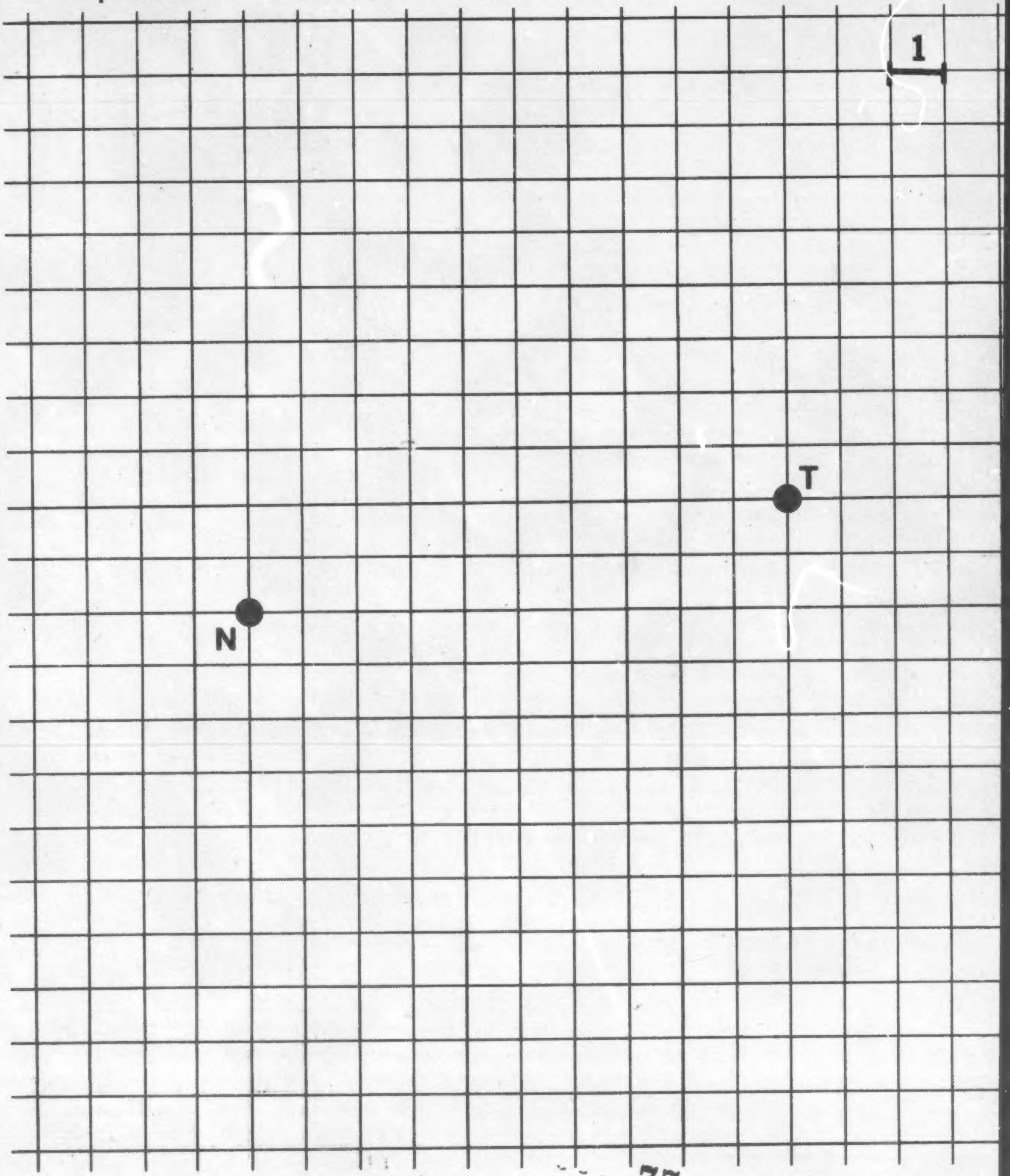
Find points the same taxi-distance from N and from S. Color them red.



Name ______________________

G 7 **

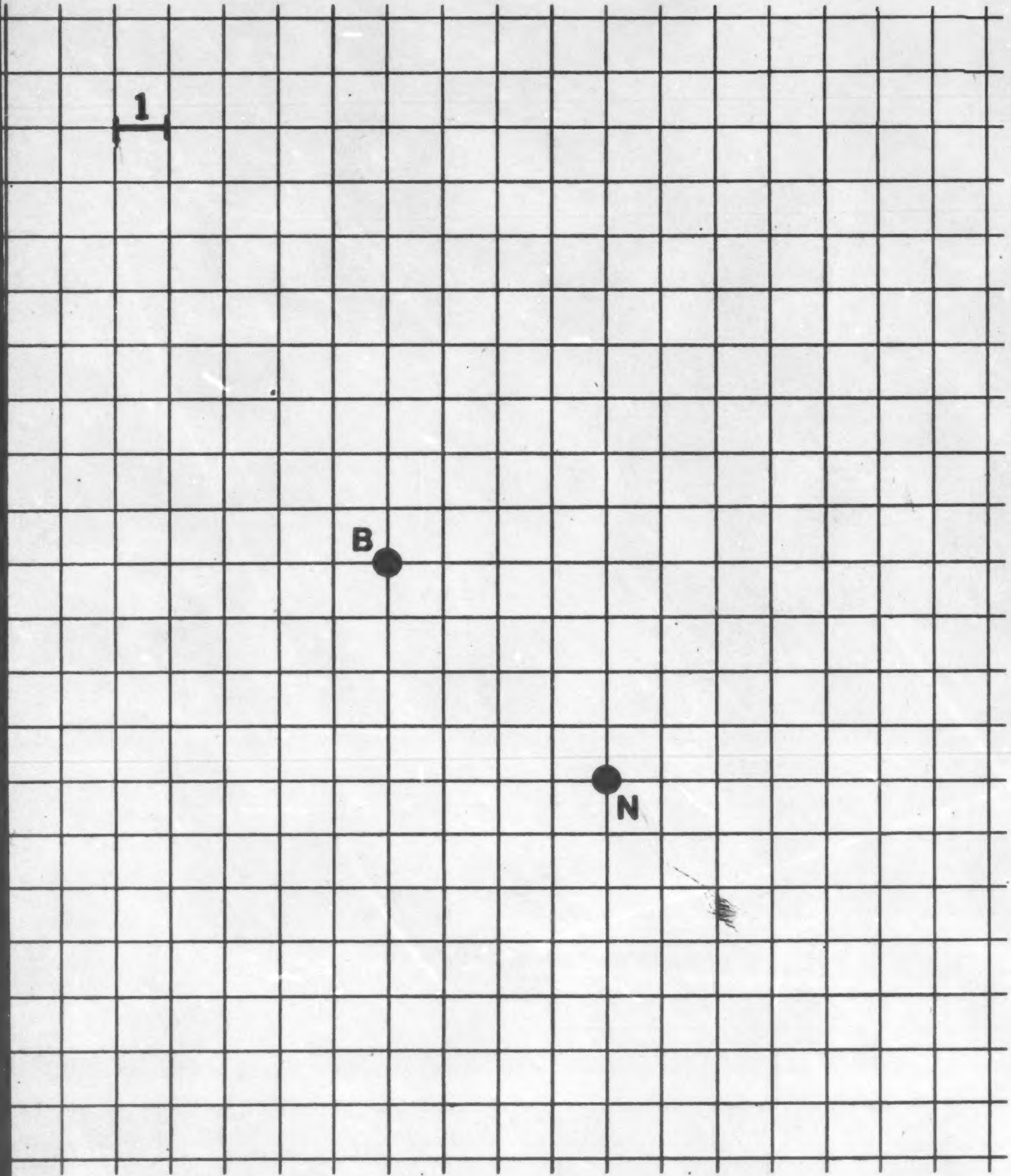
Find points the same taxi-distance from N and from T. Color them blue.



Name ______________________

G 8

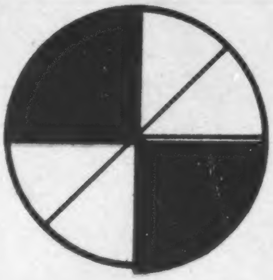
Find points the same taxi-distance from N and from B. Color them red.



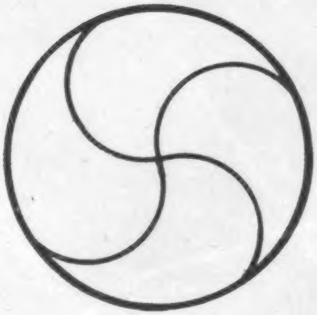
Name ______________________________ **G 9** *

Color exactly one-half of each shape. Use the picture to write another name for $\frac{1}{2}$.

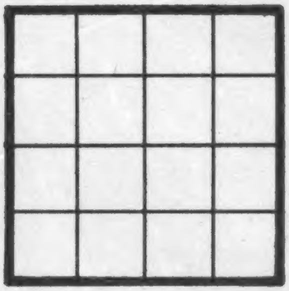
EXAMPLE



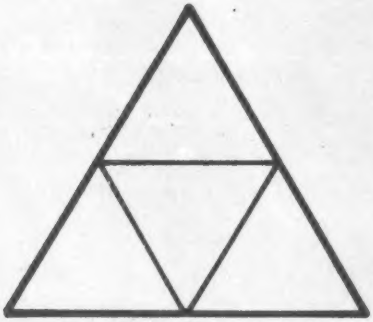
$\frac{1}{2} = \frac{4}{8}$



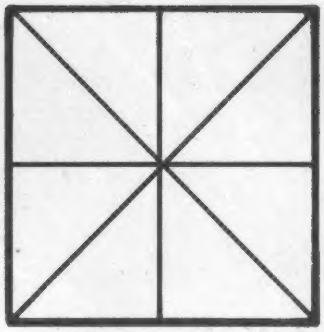
$\frac{1}{2} = \frac{}{4}$



$\frac{1}{2} = \frac{}{16}$



$\frac{1}{2} = \text{—}$

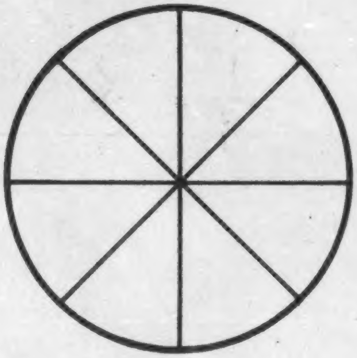


$\frac{1}{2} = \text{—}$

Name ______________________________

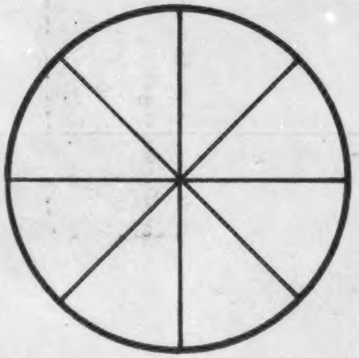
G 9 **

Color one-eighth of this shape.



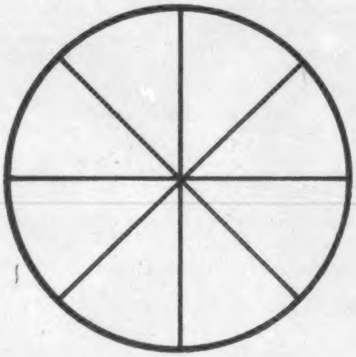
$\frac{1}{8}$

Color three-eighths of this shape.



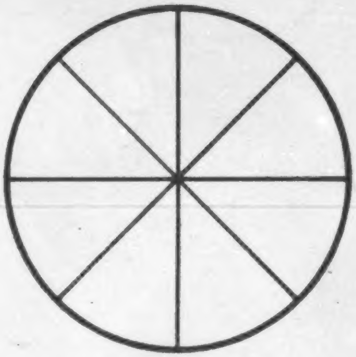
$\frac{3}{8}$

Color four-eighths of this shape.



$\frac{4}{8}$

Color seven-eighths of this shape.



$\frac{7}{8}$

Circle the name for $\frac{1}{2}$.

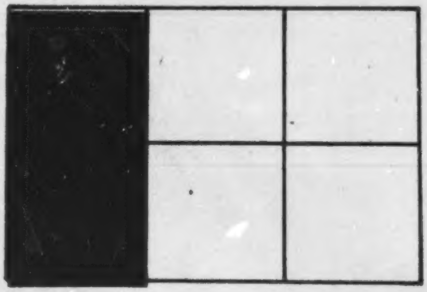
$\frac{1}{8}$ $\frac{3}{8}$ $\frac{4}{8}$ $\frac{7}{8}$

Name ______________________

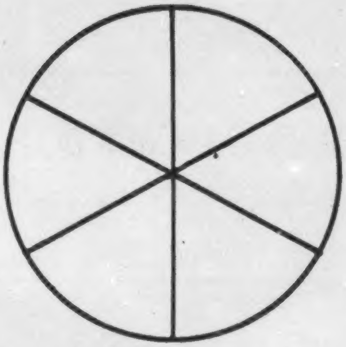
G 9 ***

Color exactly one-third of each shape. Use the picture to write another name for $\frac{1}{3}$.

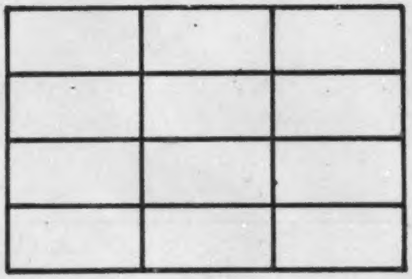
EXAMPLE



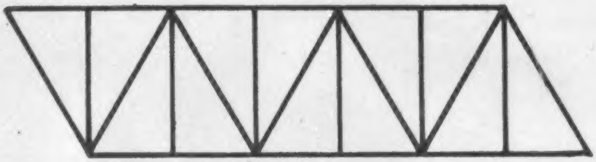
$\frac{1}{3} = \frac{2}{6}$



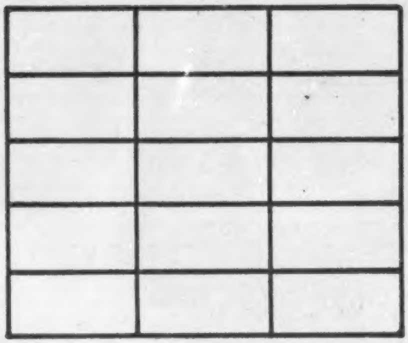
$\frac{1}{3} = \frac{\quad}{6}$



$\frac{1}{3} = \frac{\quad}{12}$



$\frac{1}{3} =$

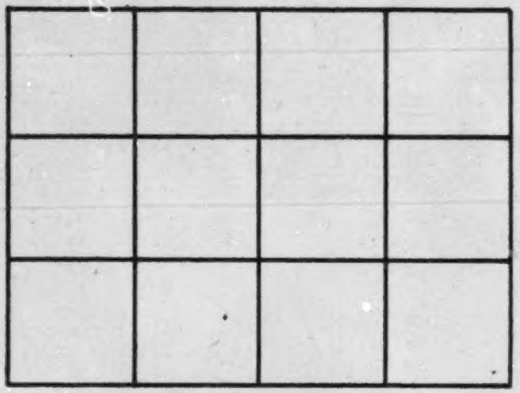


$\frac{1}{3} =$

Name ____________________

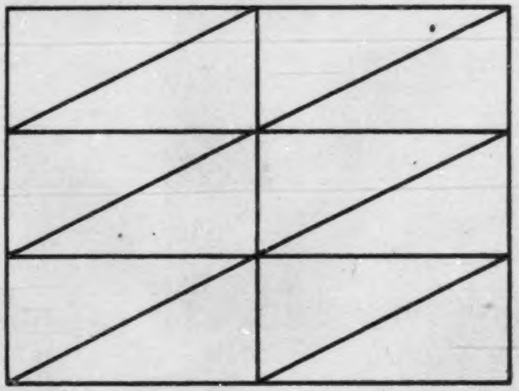
G 9 ********

Color one - twelfth of this shape.



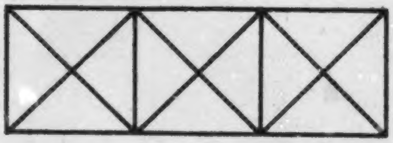
$\frac{1}{12}$

Color six - twelfths of this shape.



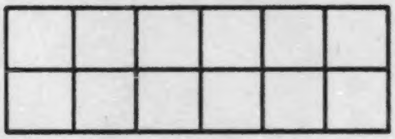
$\frac{1}{12}$

Color four - twelfths of this shape.



$\frac{4}{12}$

Color seven - twelfths of this shape.



$\frac{7}{12}$

Circle the name for $\frac{1}{2}$: $\frac{1}{12}$ $\frac{6}{12}$ $\frac{4}{12}$ $\frac{7}{12}$

Circle the name for $\frac{1}{3}$: $\frac{1}{12}$ $\frac{6}{12}$ $\frac{4}{12}$ $\frac{7}{12}$

Name ______________________________

G 10 *

Draw a zigzag with four parts. The total length of the zigzag should be 50 cm.

Name ____________________

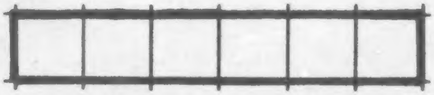
G 10 **

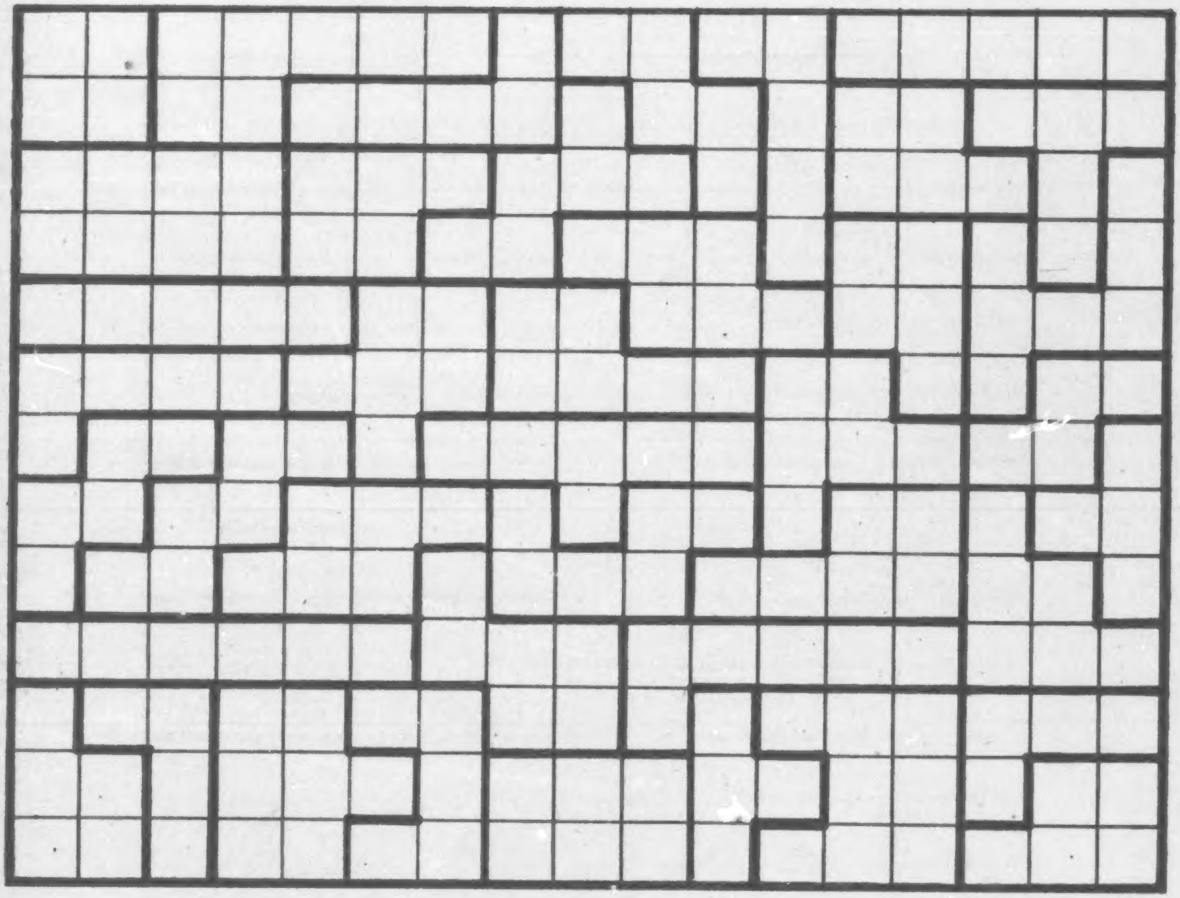
Draw a zigzag which is one meter (100 cm) long.

Name ______________________________

G 11 *

Color green all the shapes with area 6 cm^2, the same area as this shape.





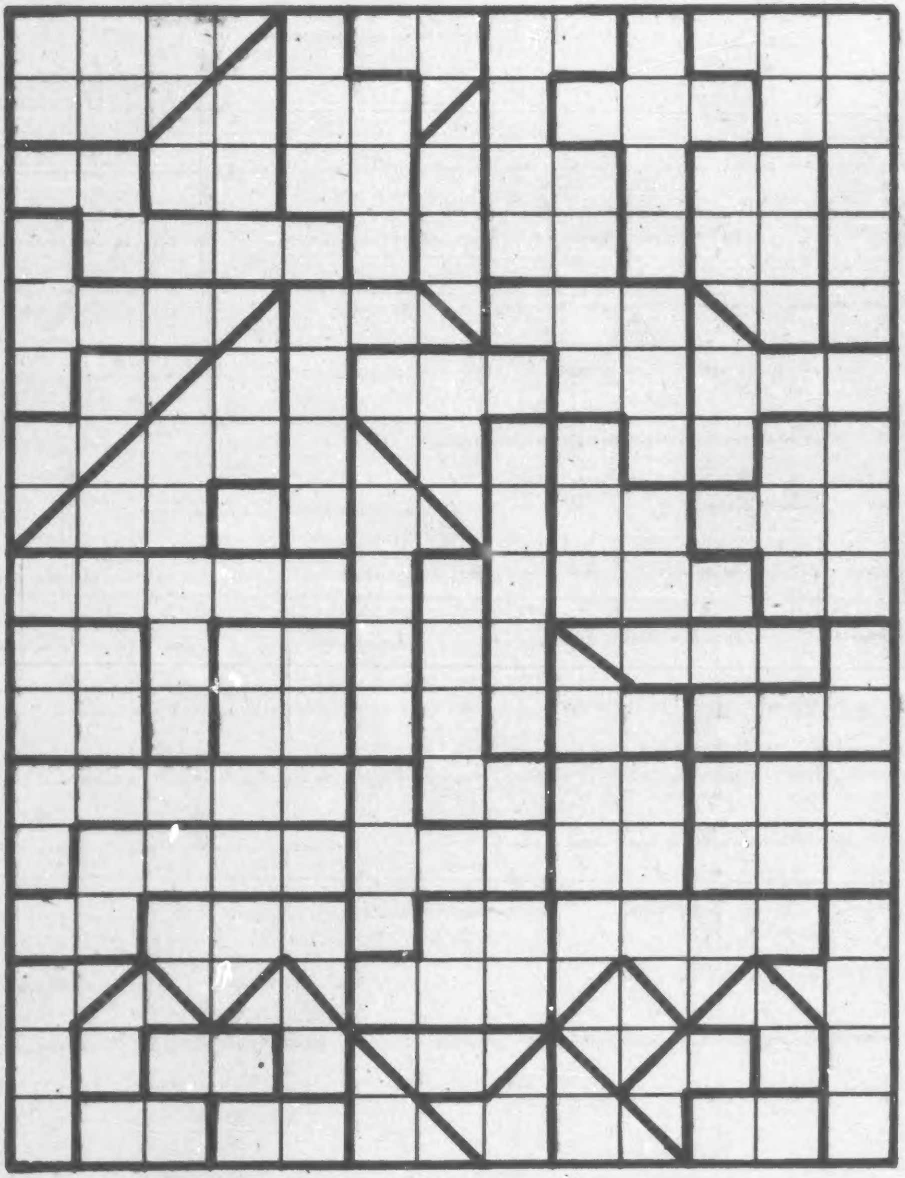
Name ________________________________

G 11 **

Color green the shapes with area 2 cm^2.

Color yellow the shapes with area 3 cm^2.

Color red the shapes with area 5 cm^2.

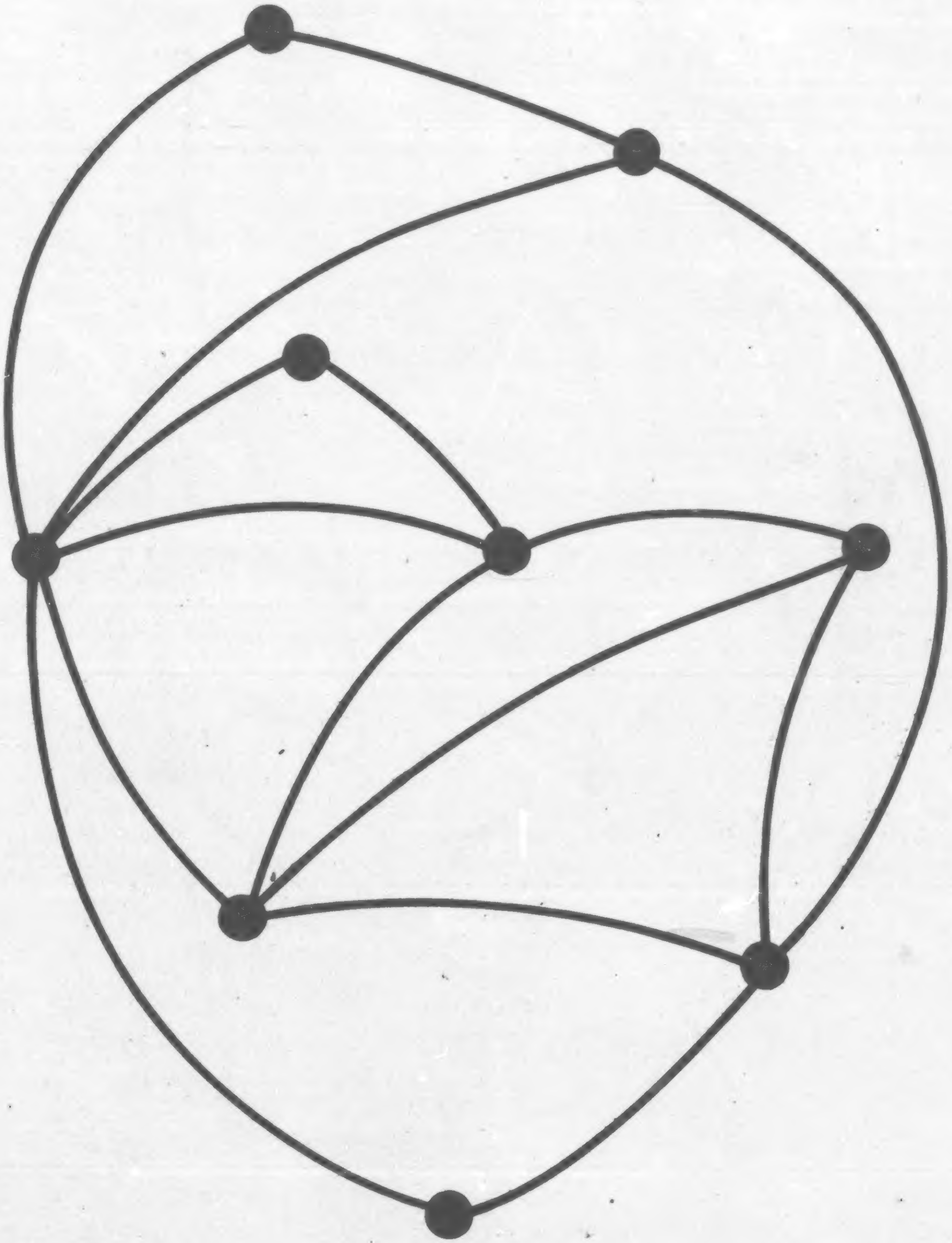


Name ______________________________

G 12 *

Find cycles which do not overlap. Use different colors to show different cycles.

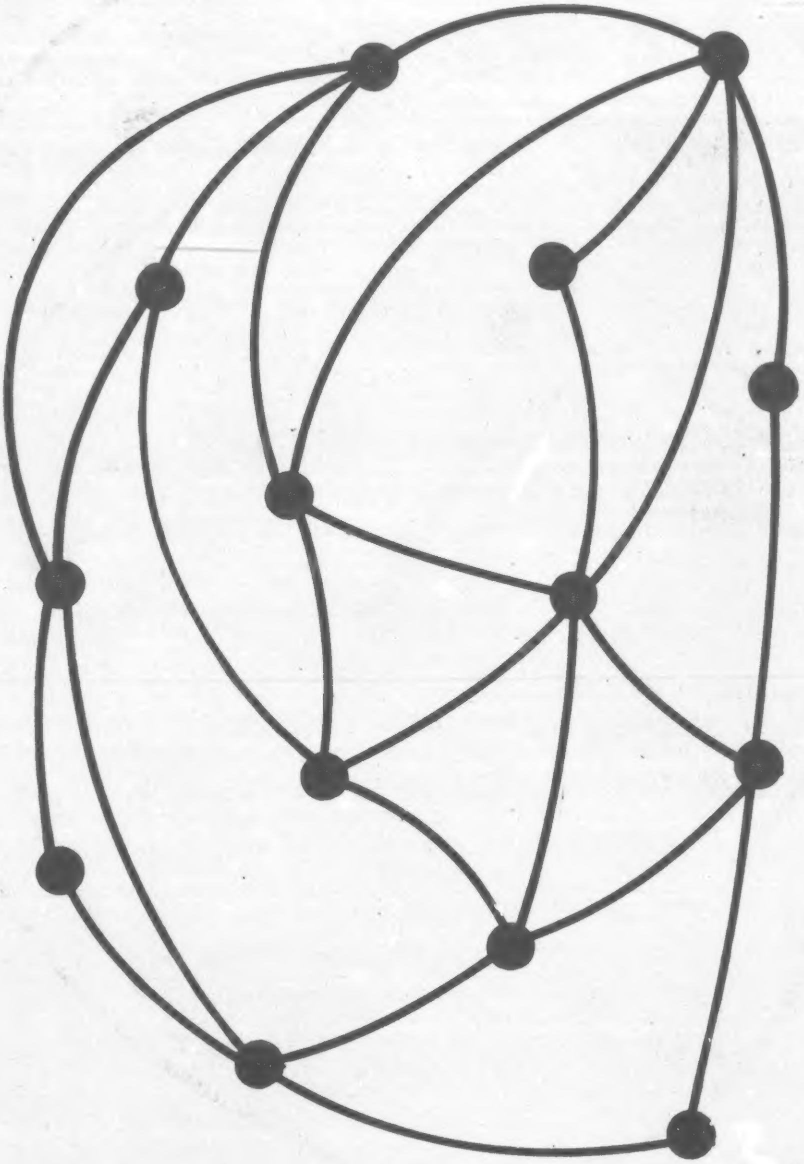
Try to use each path in some cycle.



Name ______________________

G 12 **

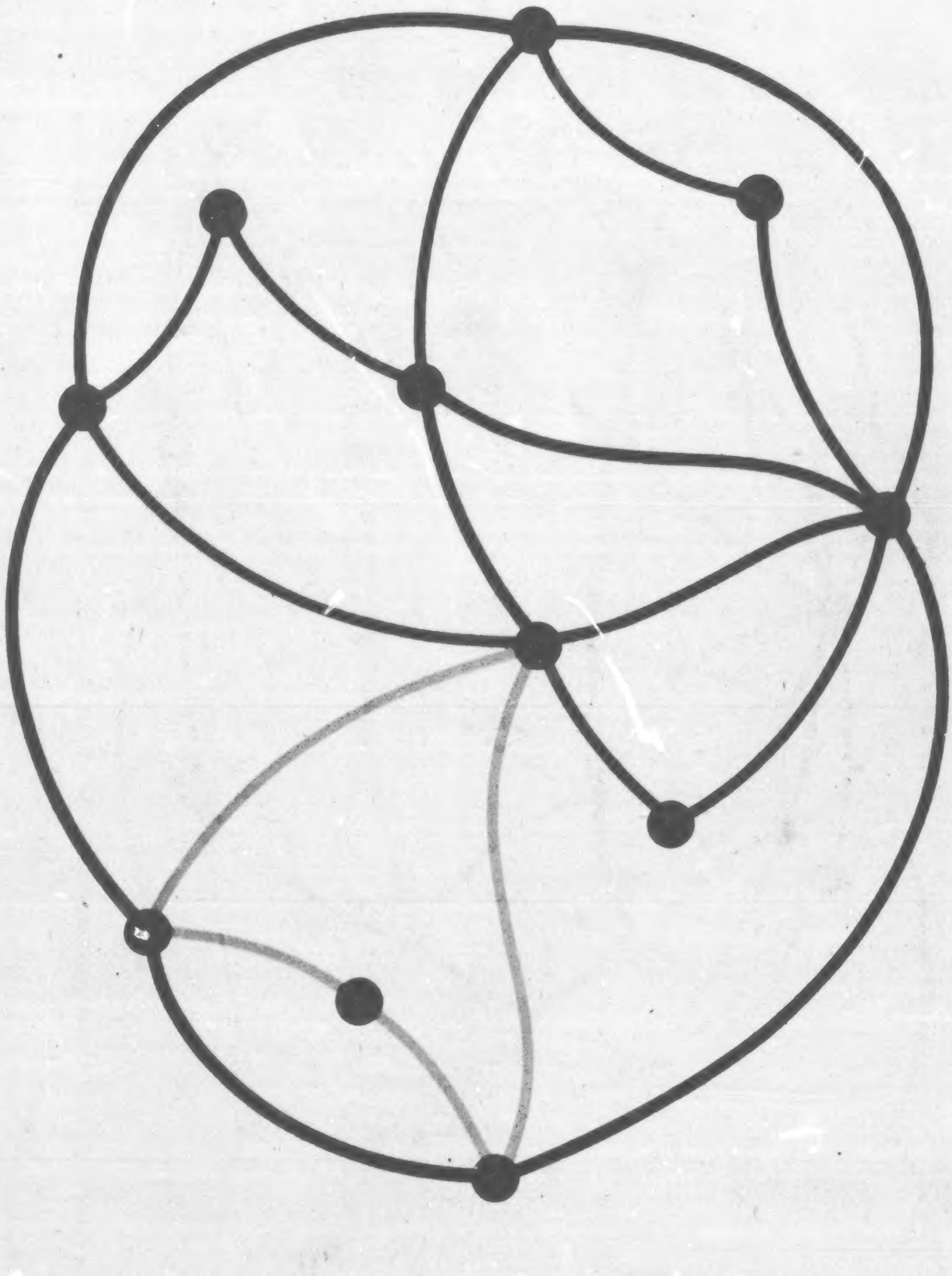
Find cycles which do not overlap. Use different colors to show different cycles. Try to use as many paths as possible in some cycle.



Name ____________________

G 13 *

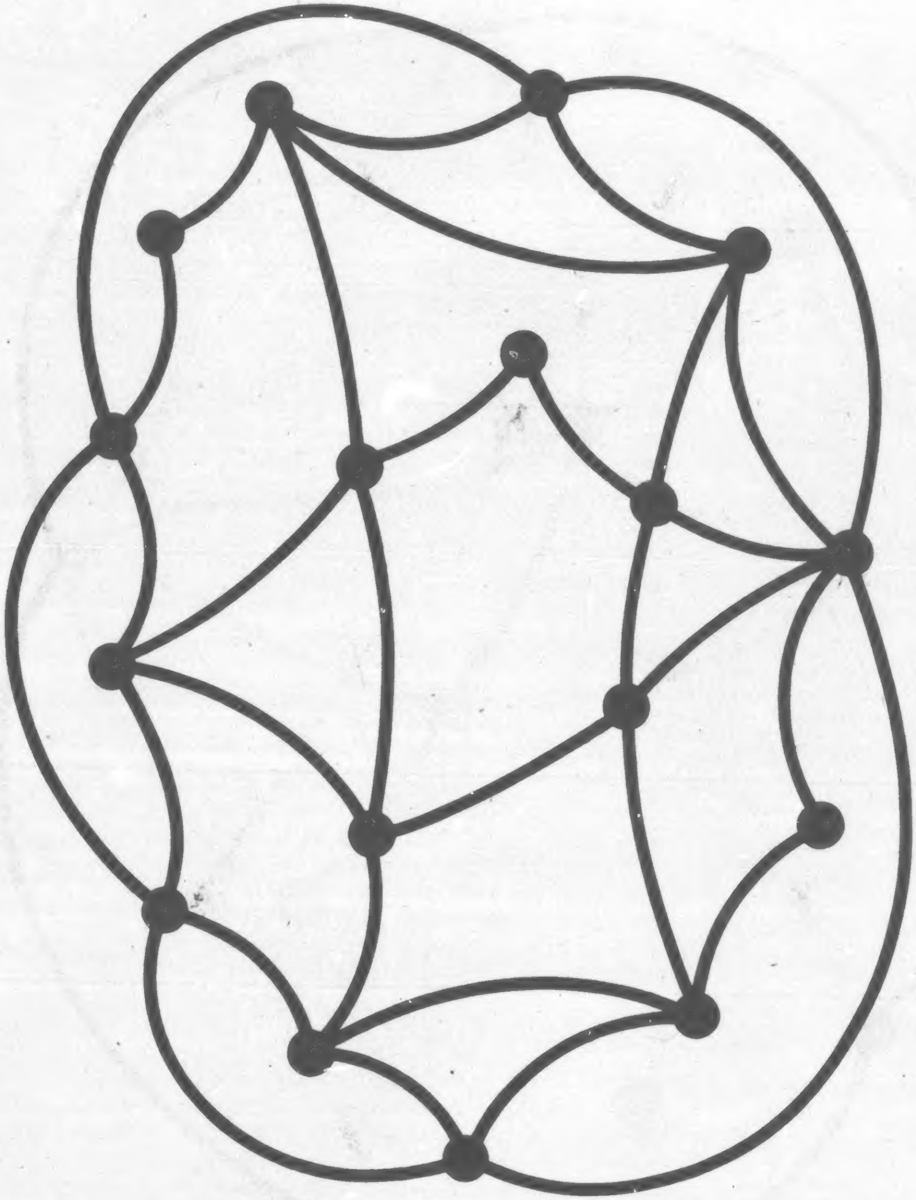
Find a trail which uses every path just once.



Name ______________________

G 13 **

Find cycles which do not overlap. Use different colors to show different cycles.

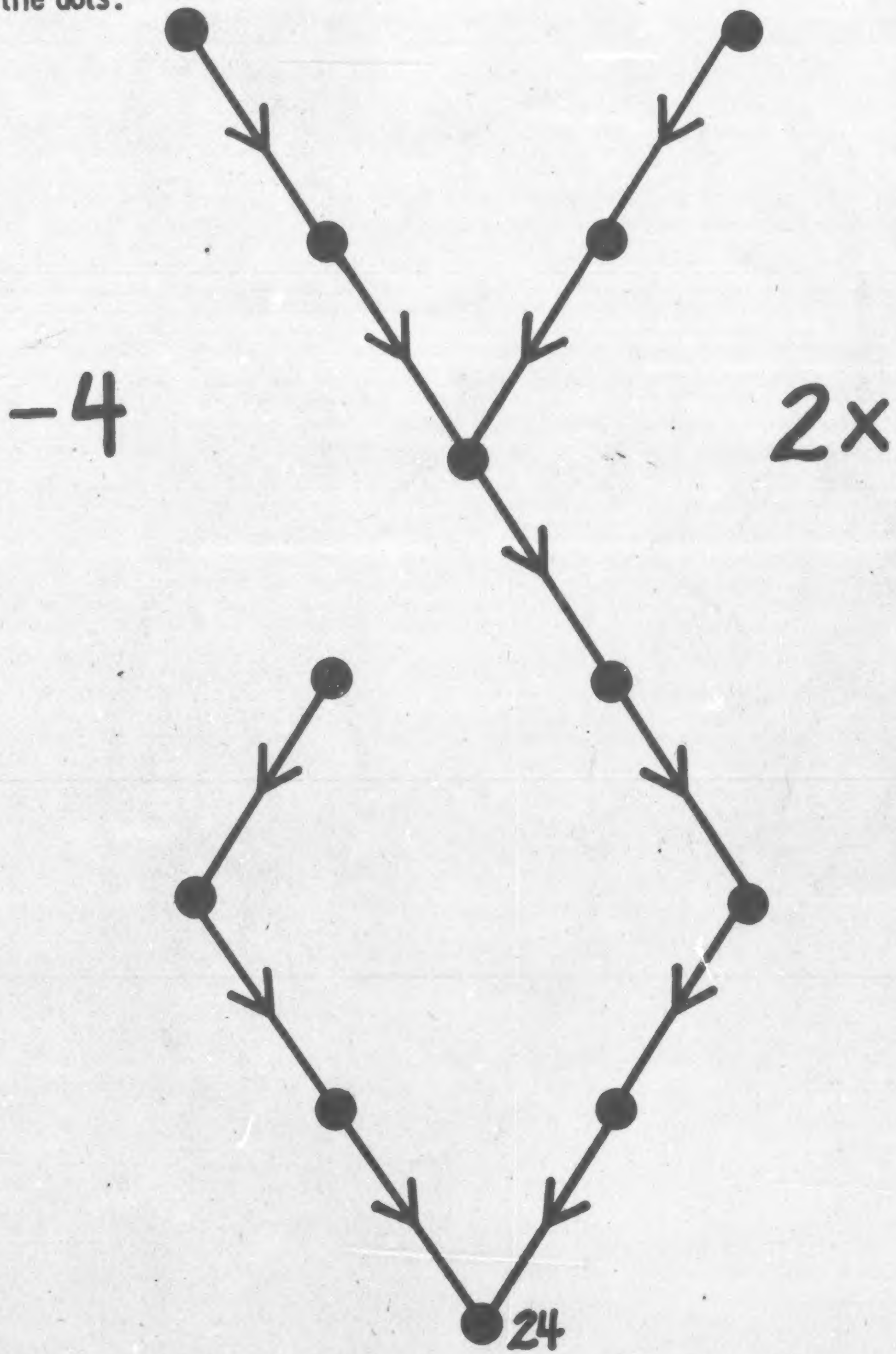


Find a trail which uses every path just once.

Name ____________________

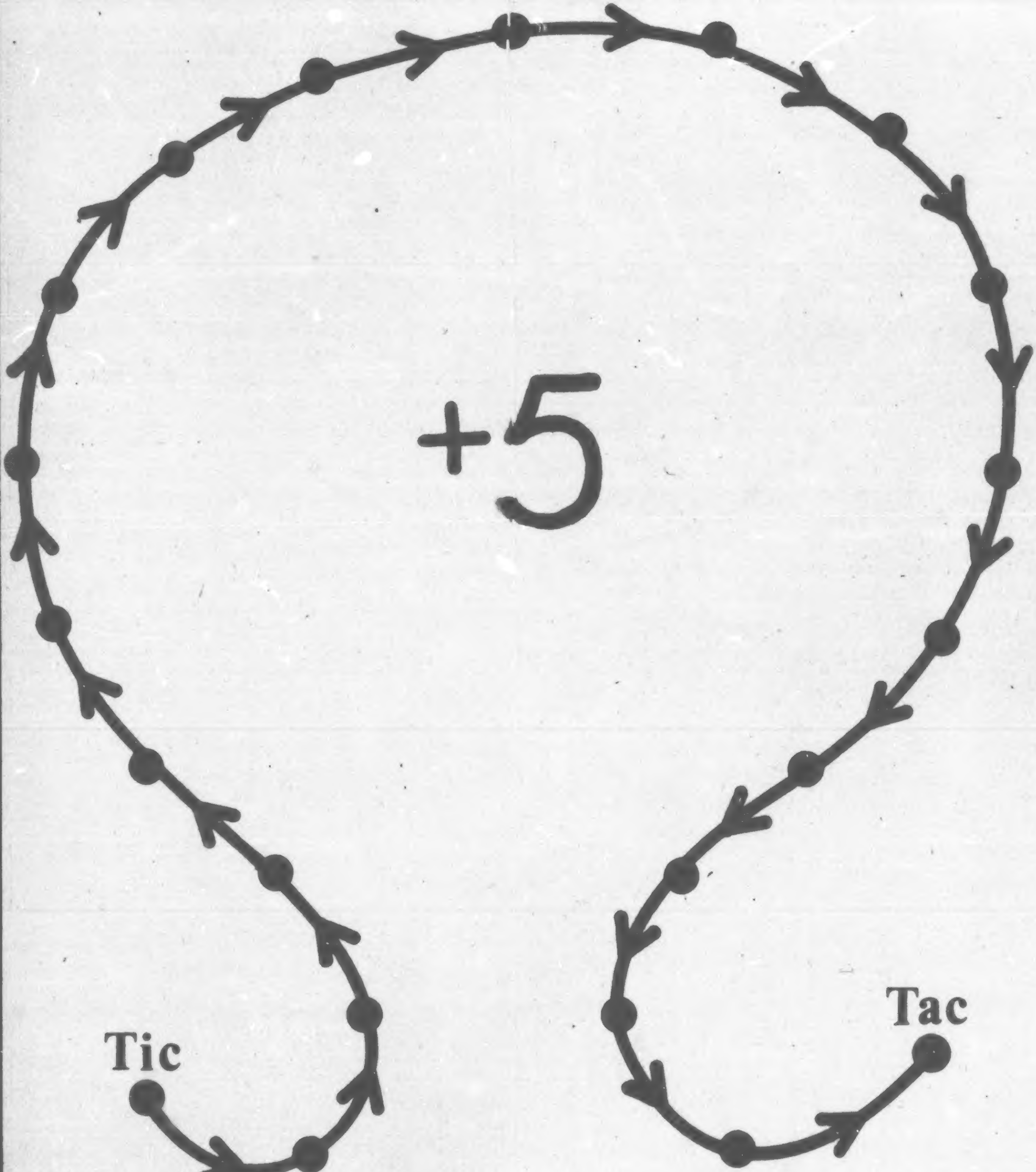
W 15

Label the dots.



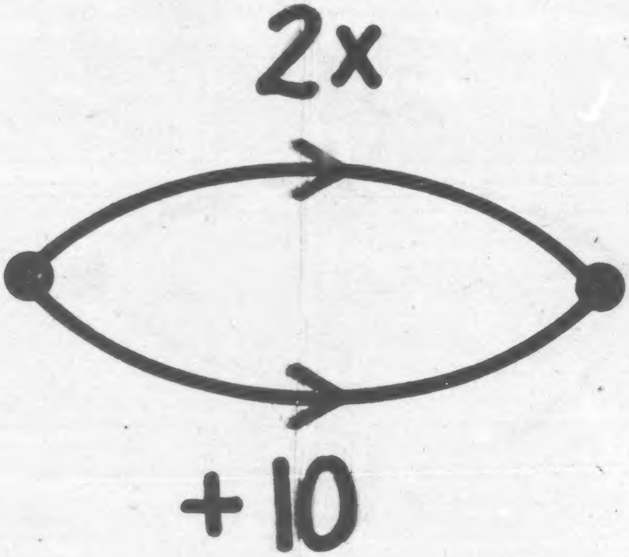
Name ______________________

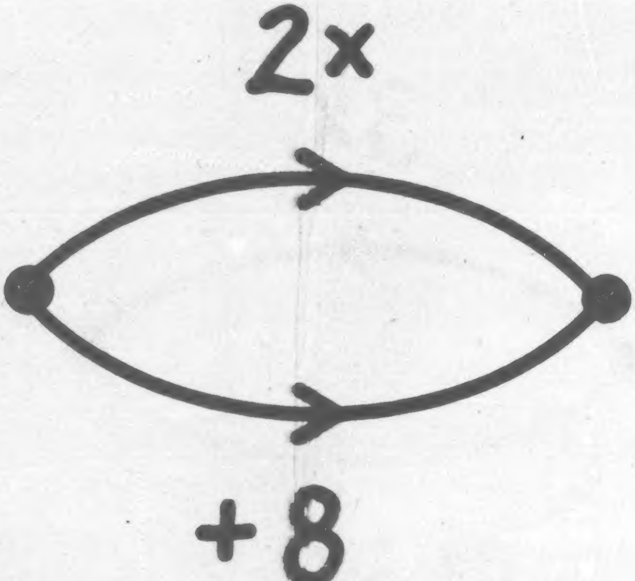
W 18 *



Name ______________________________ **W18** **

Label the dots.

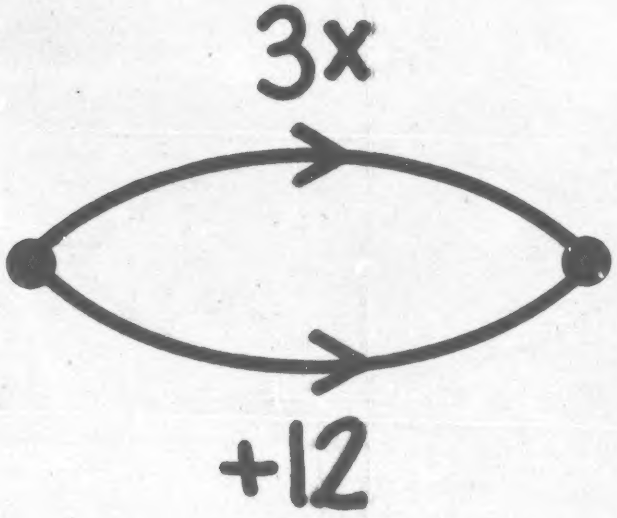


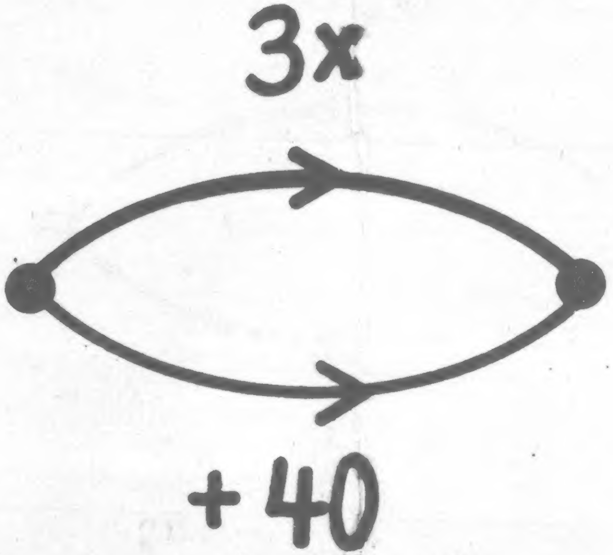


Name ______________________________

W 18 ***

Label the dots.





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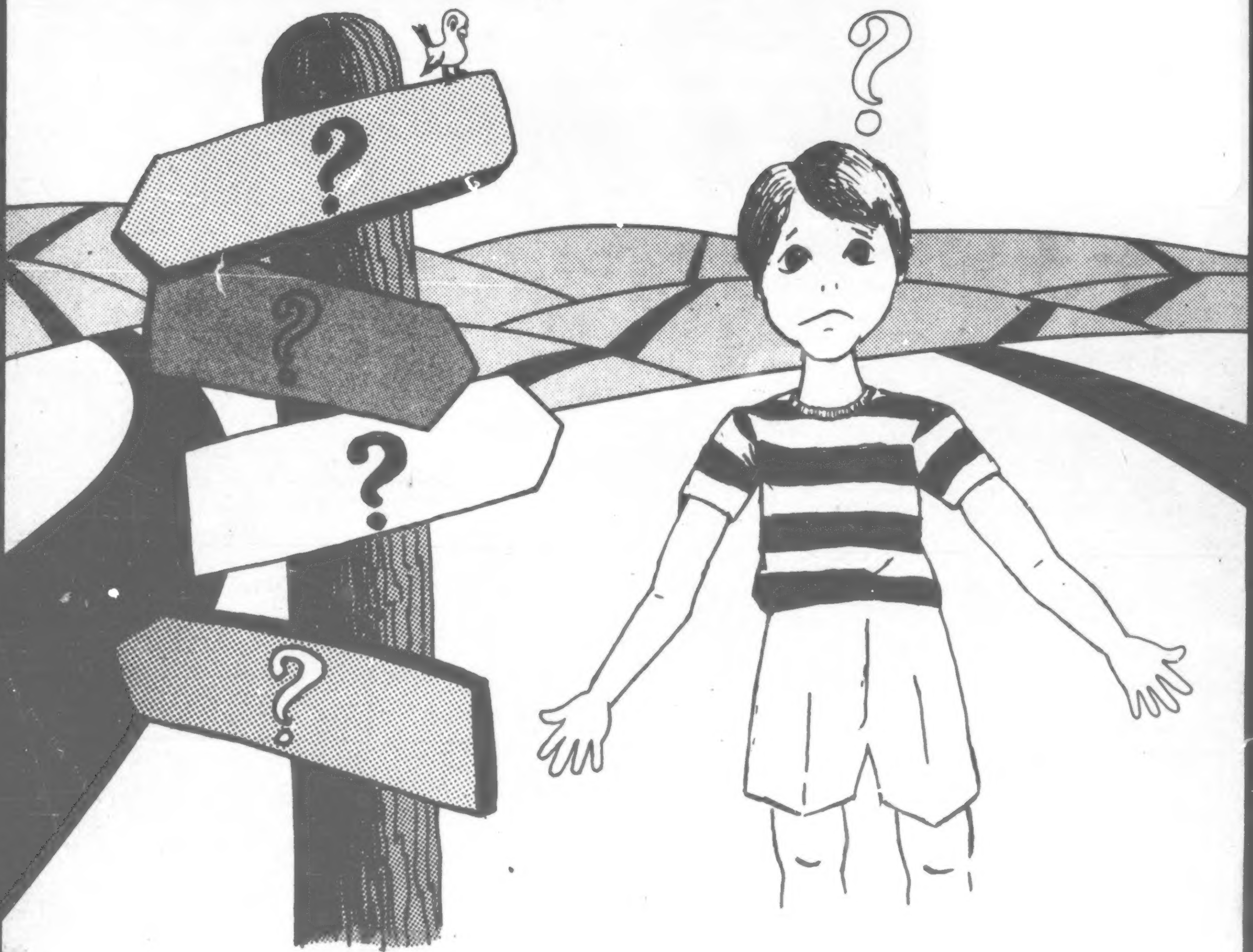
Name ______________________________

3-41701

SE

WHICH ROAD?



Select one type of arrow from the list on each page to build a road between the labeled dots. Try to find the shortest possible road between each pair of numbers.

MAY 16 1980

●12

+2

+4

−5

+1

+3

●

0

●0

+5

+2

−10

2×

+4

●

20

● 18

+3

−6

+4

−2

+9

●
0

4

●

+5

−6

2×

+4

−2

● 16

● 15

+2

−1

−3

+6

+10

3 ●

●5

−5
+2
2×
−4
+10

25●

● 24

−2

+1

−4

+8

2×

8 ●

4
●

−1
+2
+4
+8
−5

● 24

40

●

+5

−10

+4

2×

−3

●

10

●22

−3

+5

+1

3×

−15

7●

● 24

2×

+3

−4

+8

−6

● 0

8
●

+6

2×

+4

3×

−7

●32

●21

+2

+5

−4

2×

−8

5●

30 ●

2 ×

+7

−9

−4

+2

● 2

29

−3

+9

+6

2×

−1

2

110

●48

+6

−5

2×

−9

+11

●
12

● 9

+2

3x

+10

-5

-20

●

59

47

+8

+6

−3

2×

+12

11

36

+2

+6

−3

2x

+5

6

●59

+2

+15

−5

2×

−10

9●

●1

2 ×

+5

+25

−15

−2

76

●82

-40
+8
2×
+16
+32

18●

● 10

+5

−25

+15

3×

+45

100 ●

750
●

+300
−250
+100
3×
+200

●
250

100
●

-25

2x

+10

4x

+50

25●

120

132
●

+11

−12

2×

+33

3×

●
33

●36

2x

3x

+15

6x

−6

6●

● 80

2×

+8

−16

5×

+34

●

16

5

3×

+25

5×

−20

+60

125

57
●

+2
4×
3×
−19
+39

●
19

234
●

3×
+110
−104
+26
2×

126

● 26

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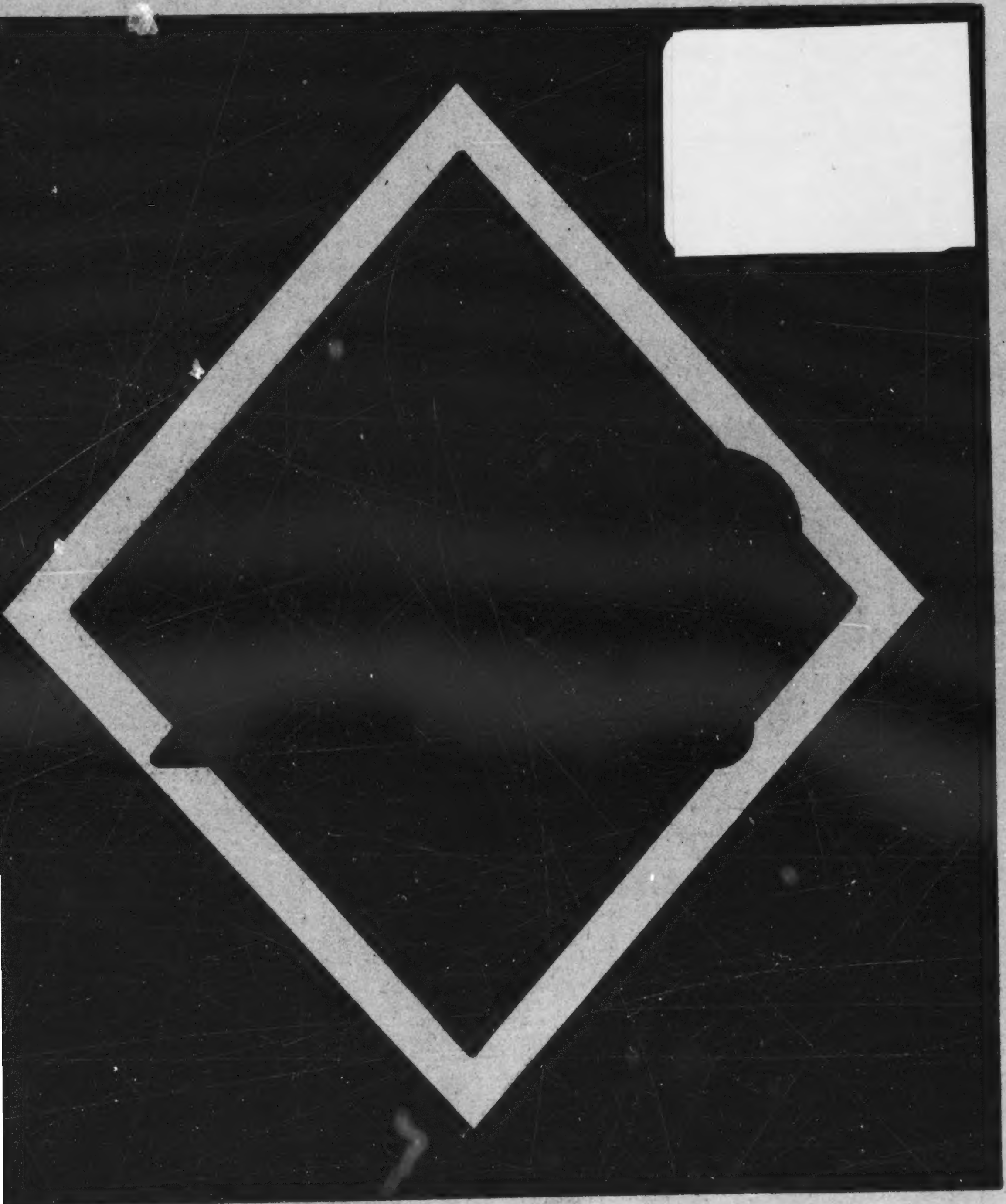
me

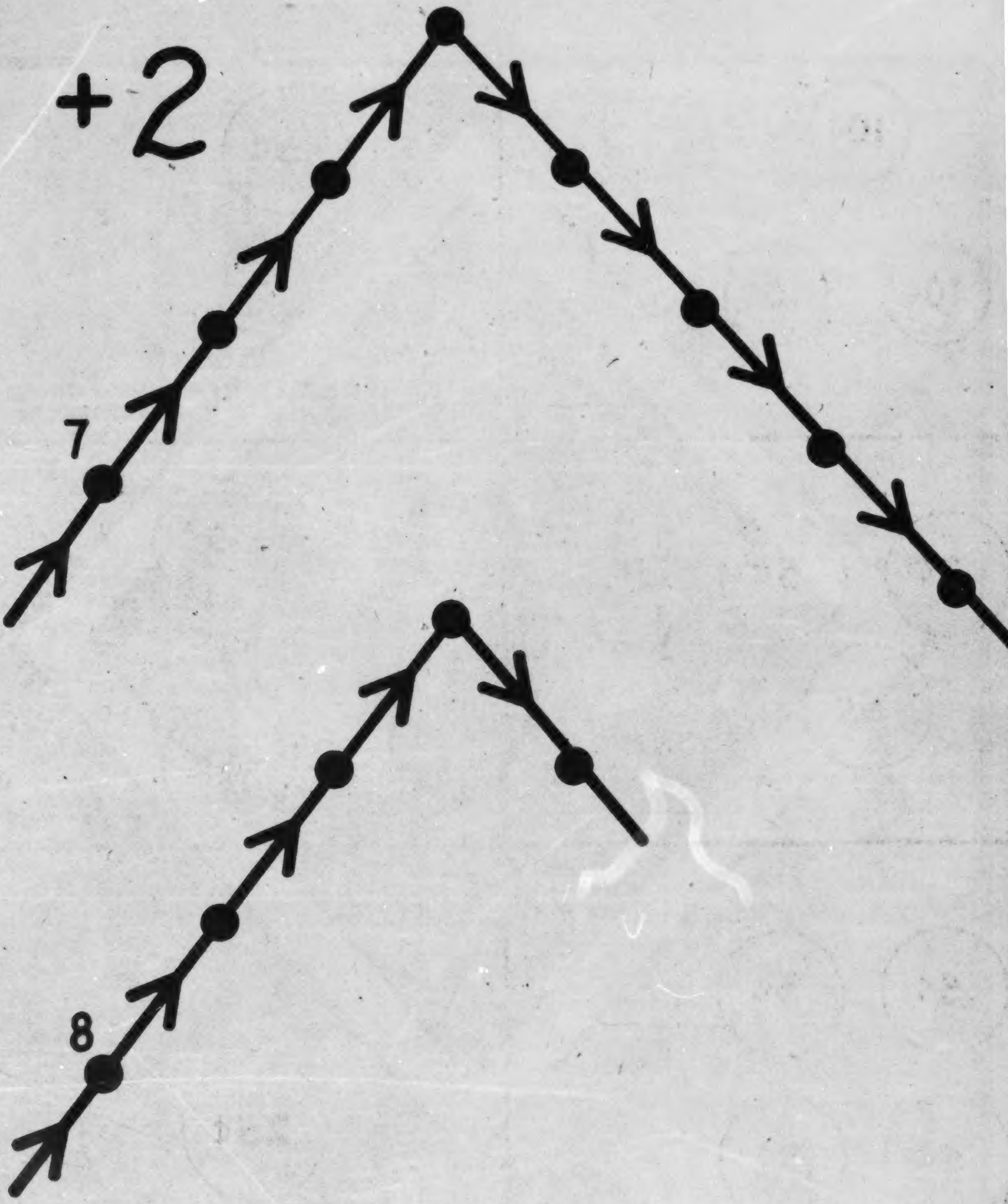
SE



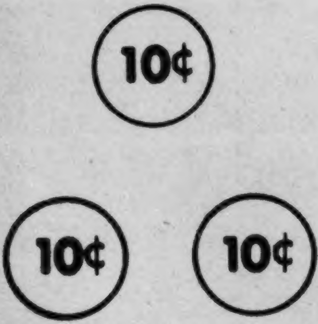
MAY 1 6 1980

Label the dots.

If 20 is not in this picture, extend it to include 20.



How much money?



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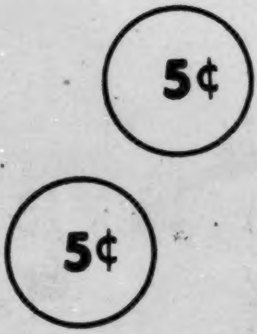

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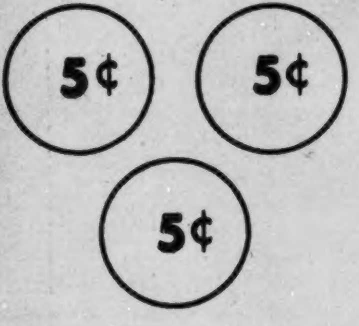

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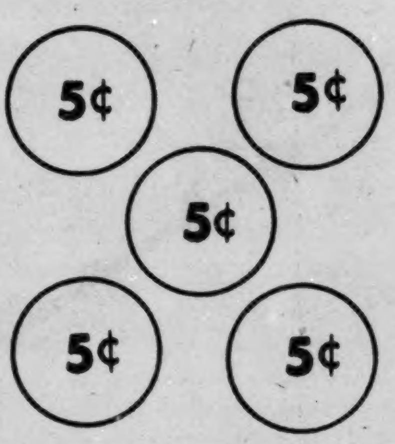

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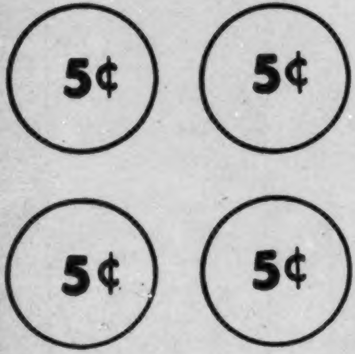
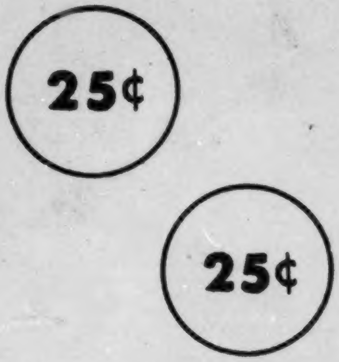


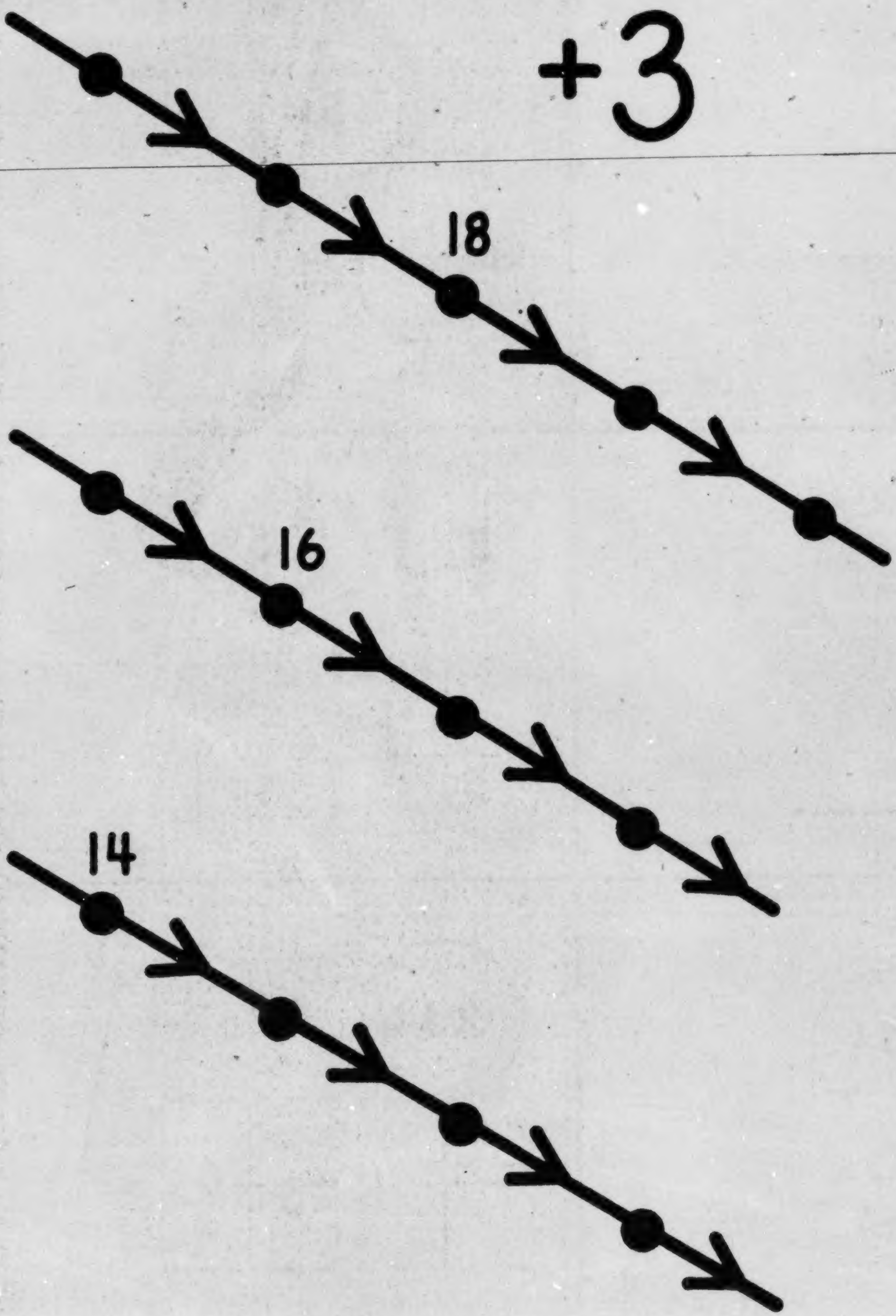
______ ¢



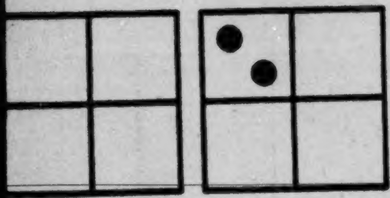
______ ¢

Label the dots.

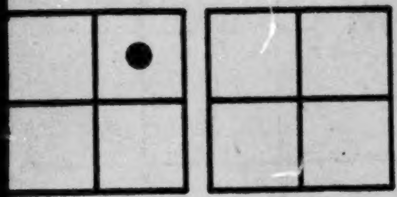
If 20 is not in this picture, extend it to include 20.



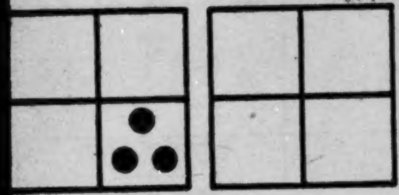
What number is on the Minicomputer?



= ______



= ______



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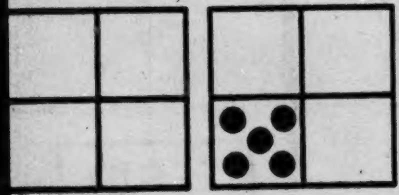
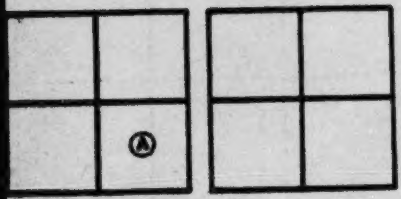
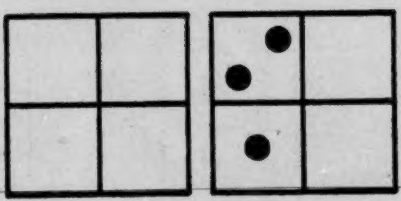


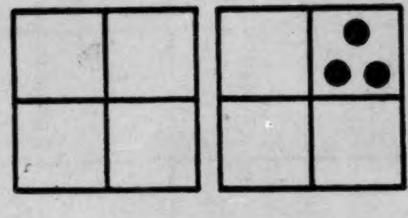
= ______



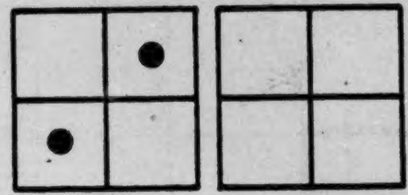
= ______



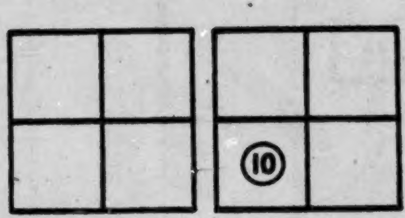
= ______



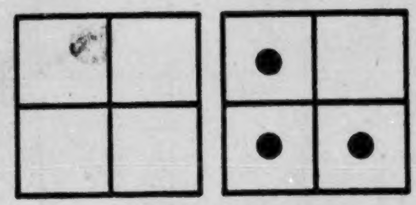
= ______



= ______



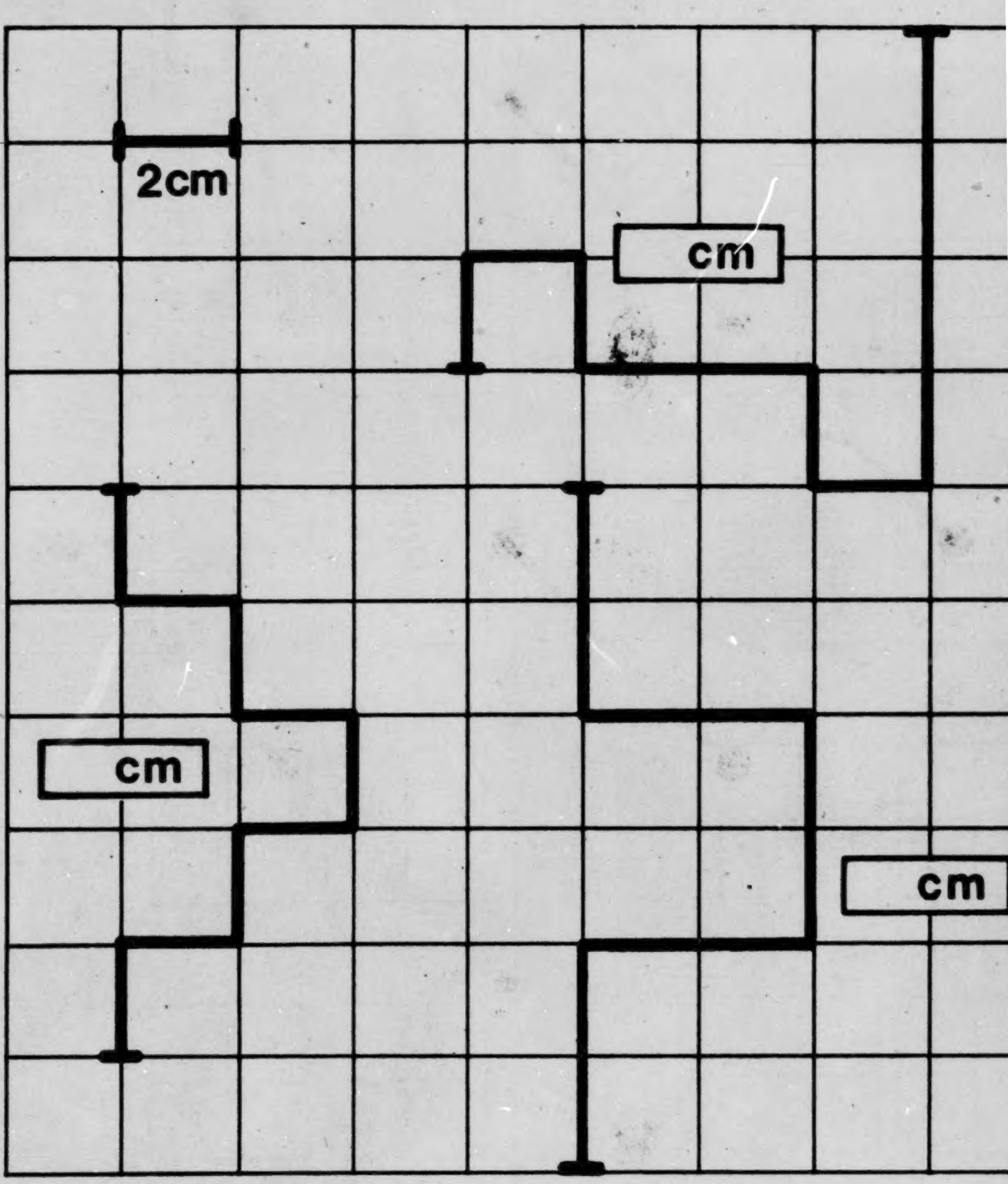
= ______



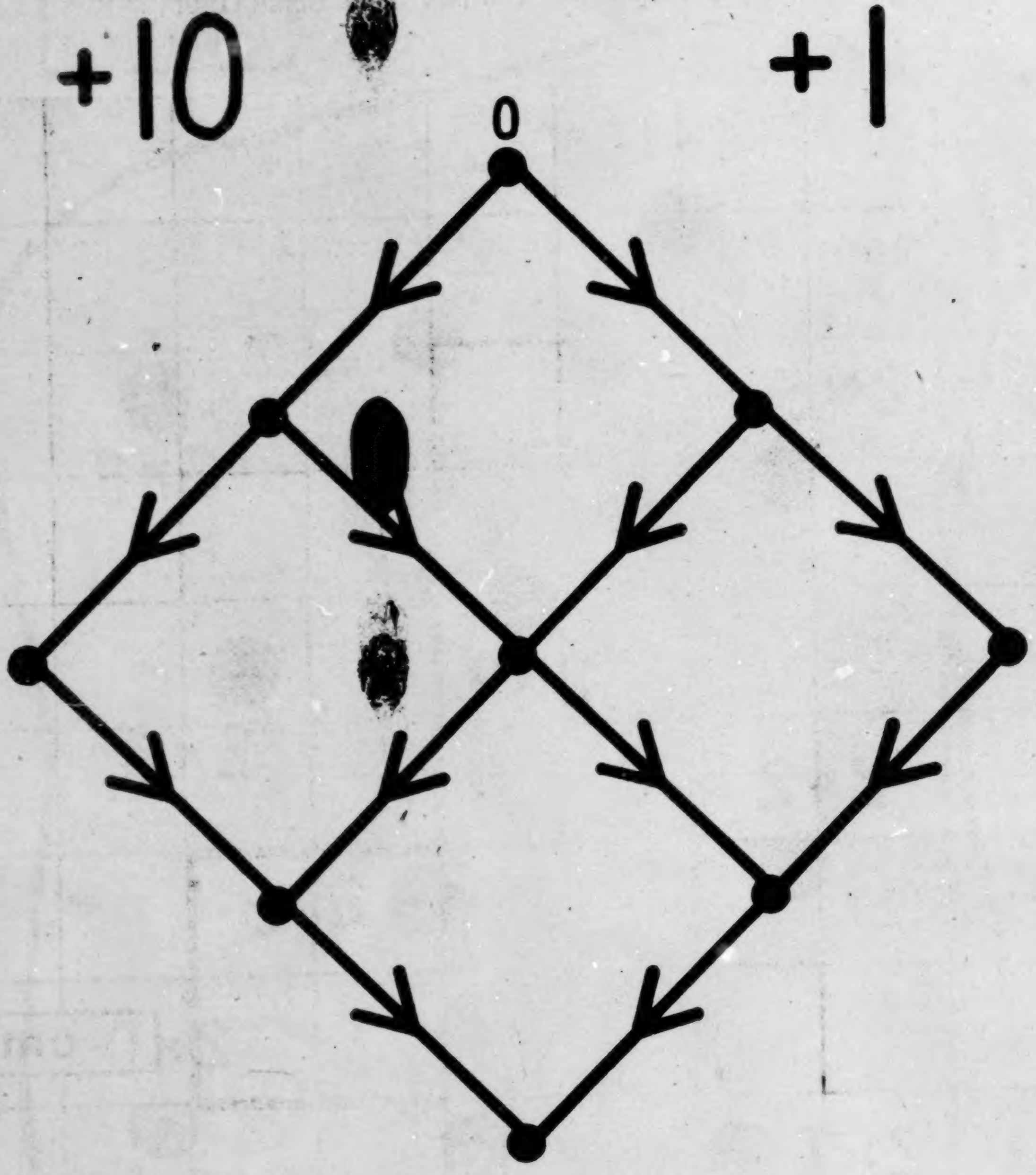
= ______

How long are these zigzag paths?

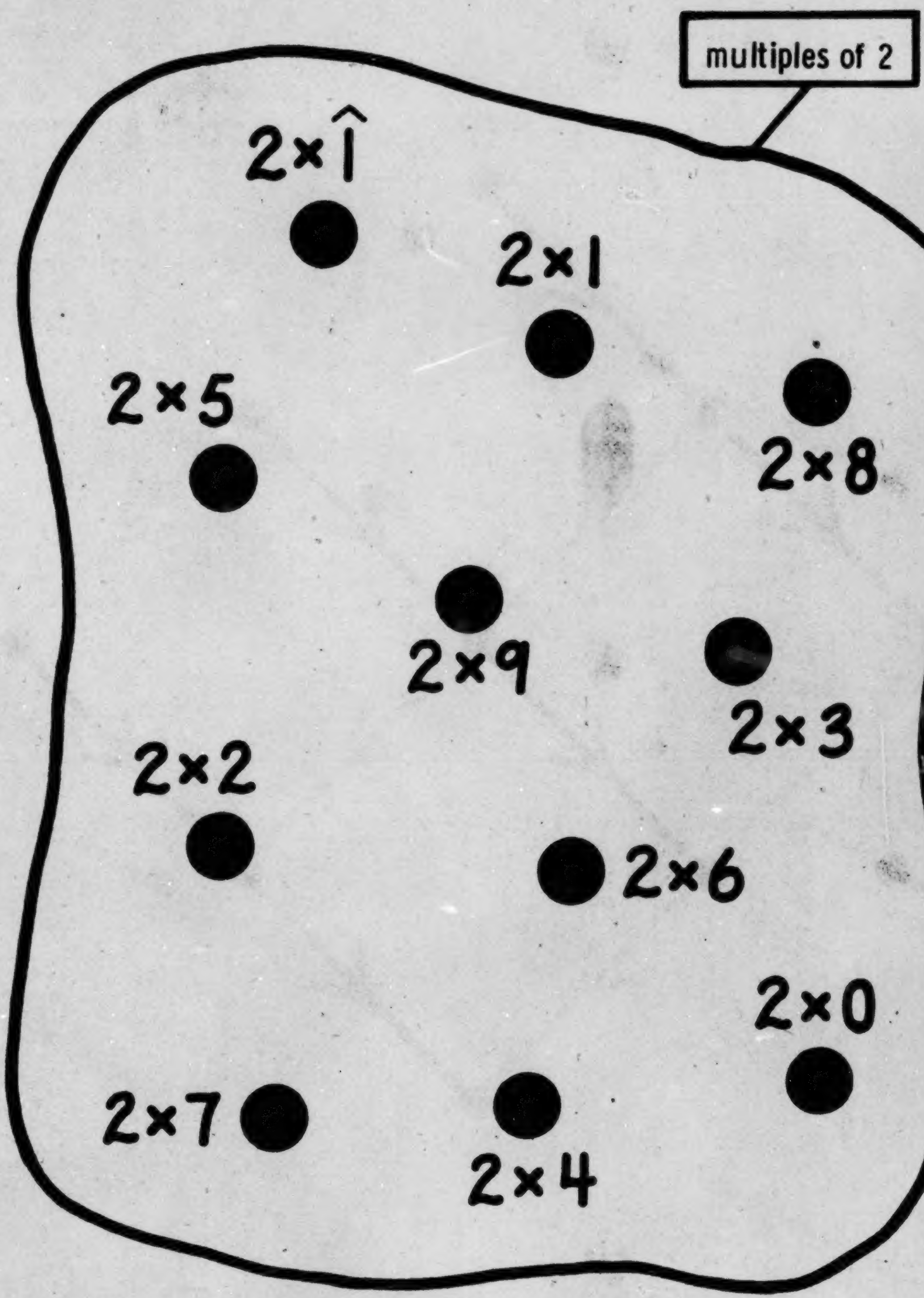
For each zigzag, put your answer in the box of the same color.



Label the dots. 20 is in this picture.

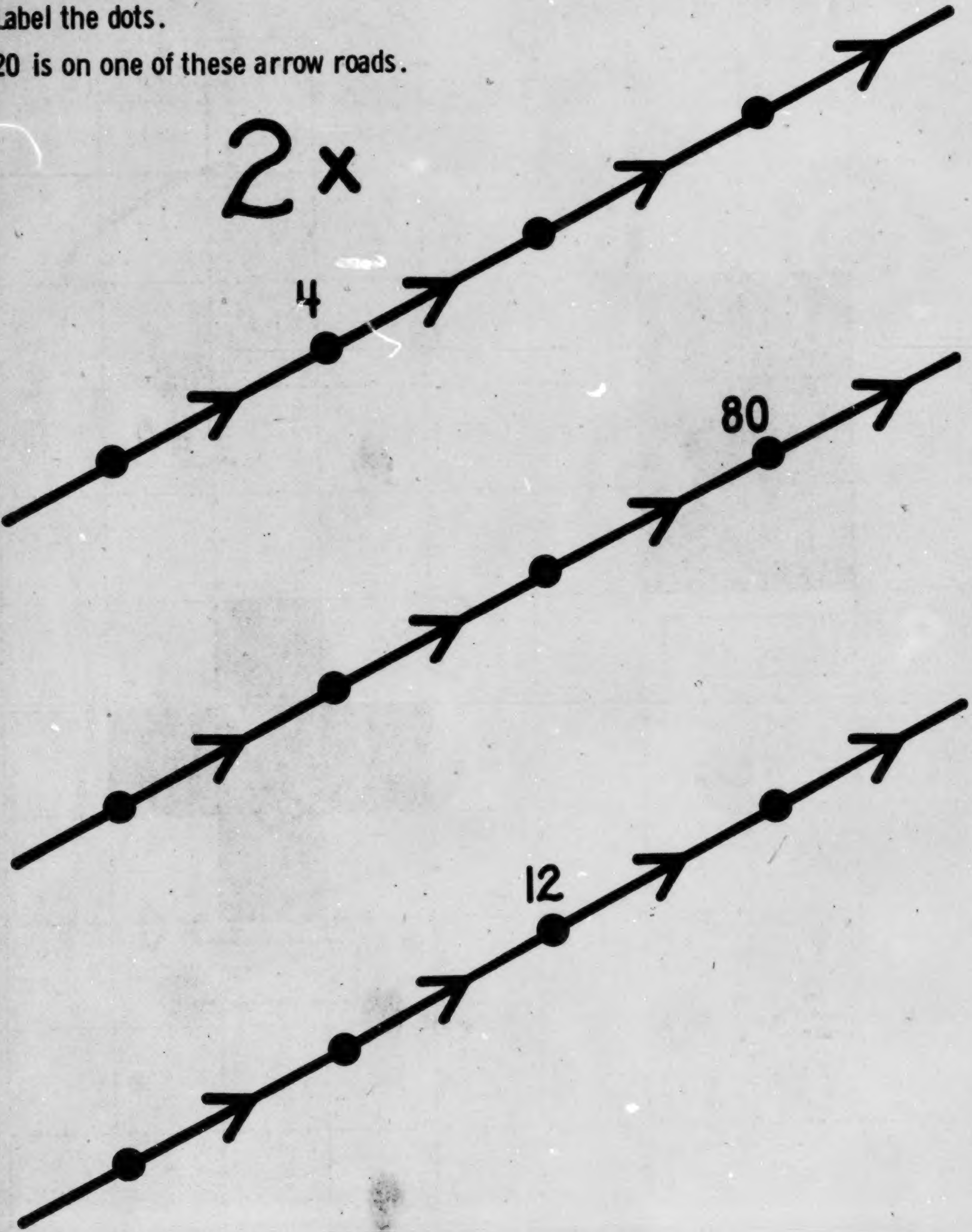


Find or put 20 in this picture.

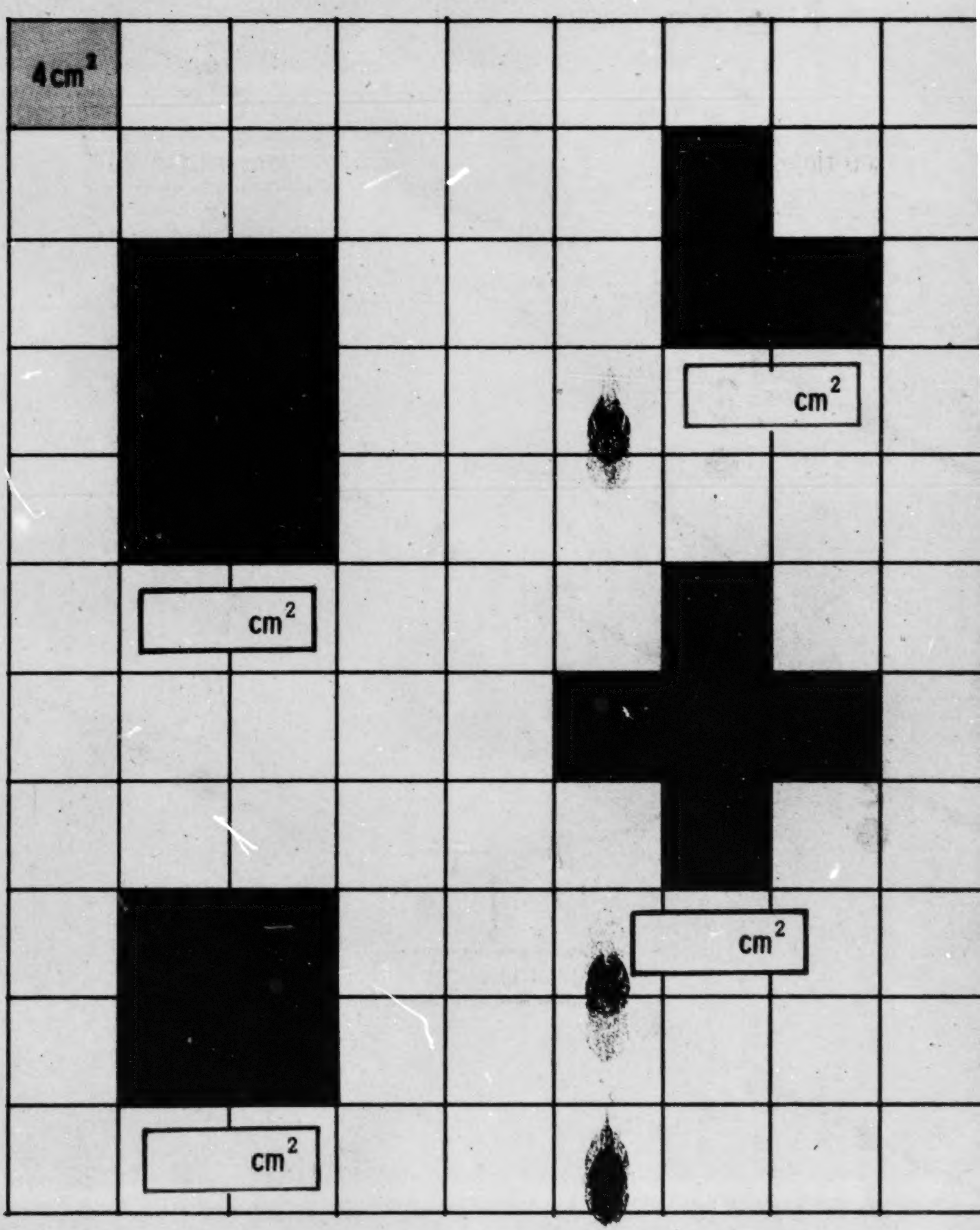

multiples of 2
2×1̂
2×1
2×5
2×8
2×9
2×3
2×2
2×6
2×0
2×7
2×4

Label the dots.

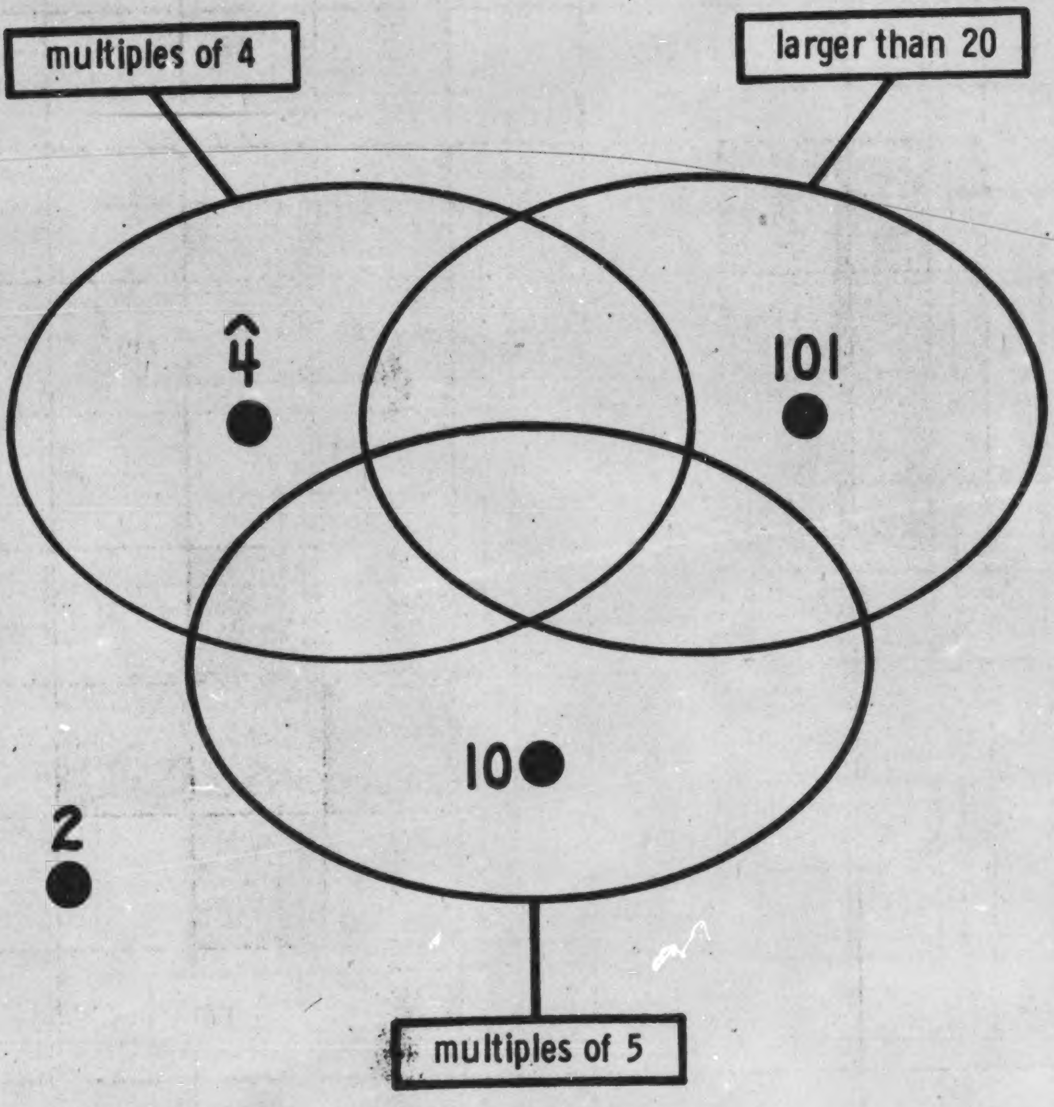
20 is on one of these arrow roads.



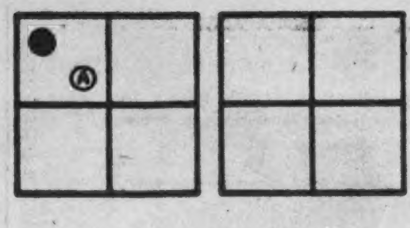
What are the areas of these shapes?

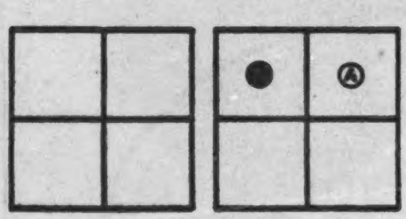

4 cm²
cm²
cm²
cm²
cm²

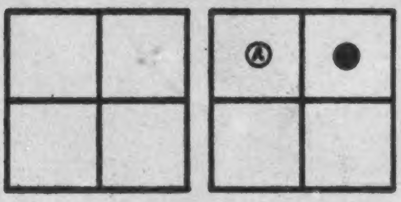
Draw and label a dot for 20.

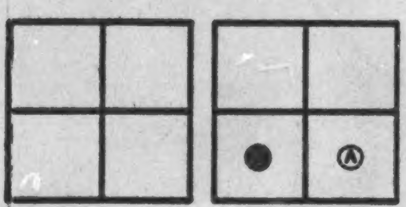

multiples of 4
larger than 20
4
101
10
2
multiples of 5

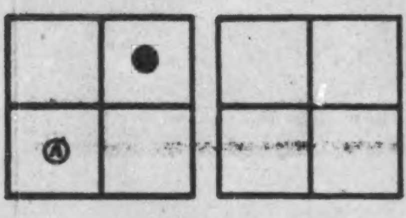
What number is on the Minicomputer?

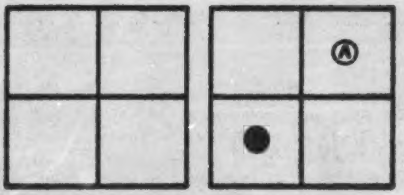

= ____

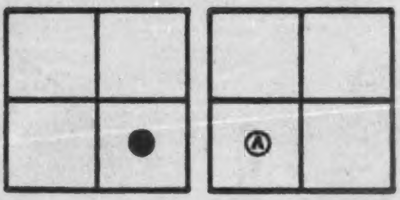

= ____

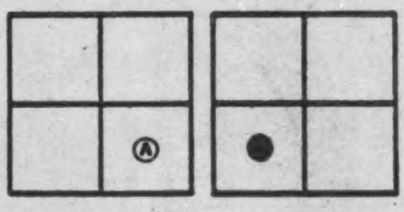

= ____

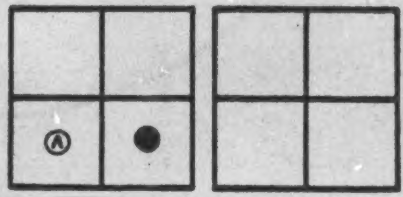

= ____

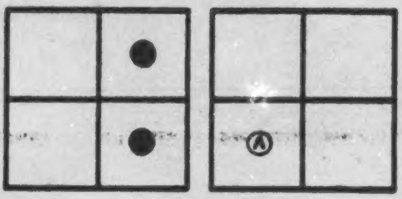

= ____


= ____


= ____

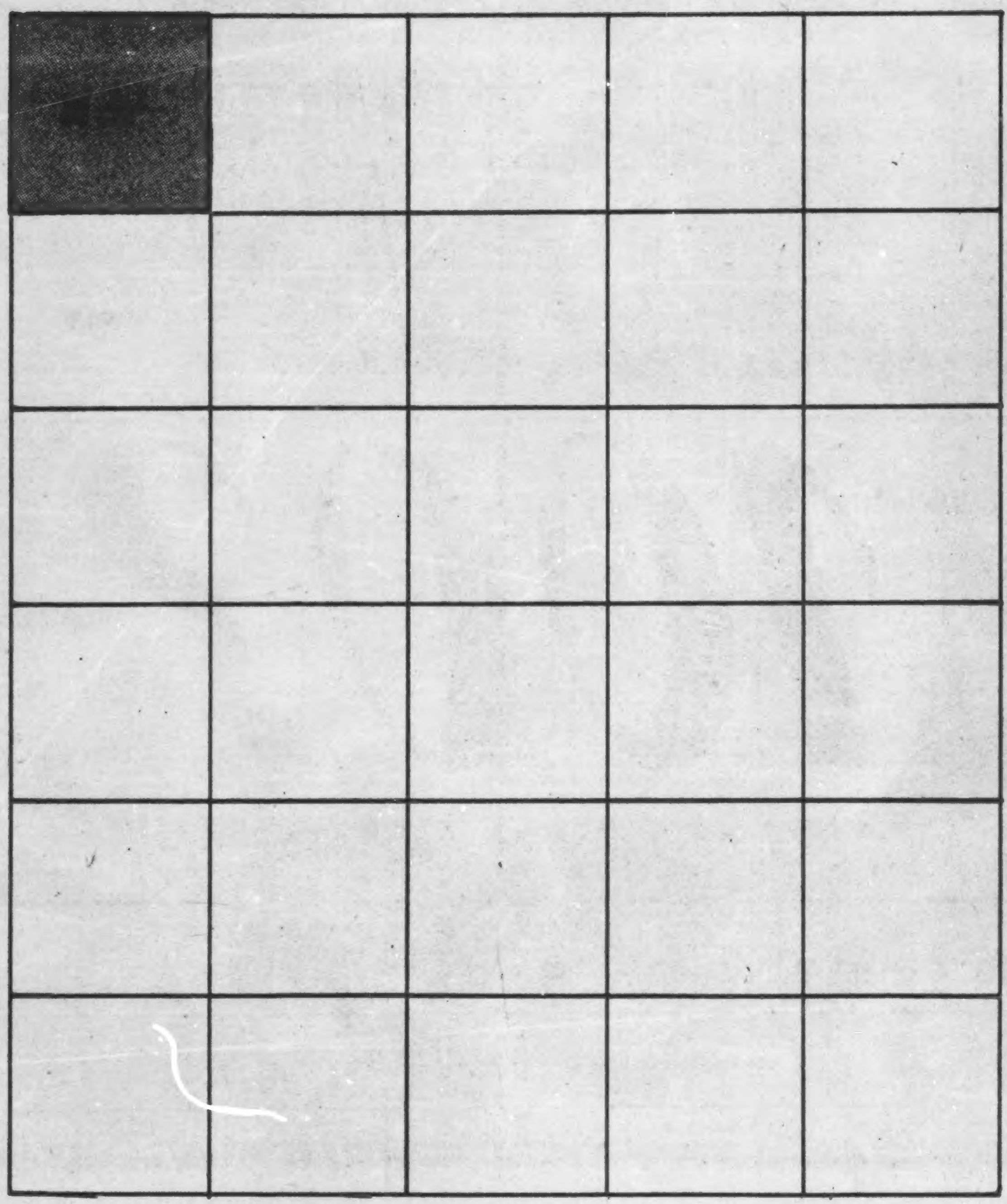

= ____


= ____

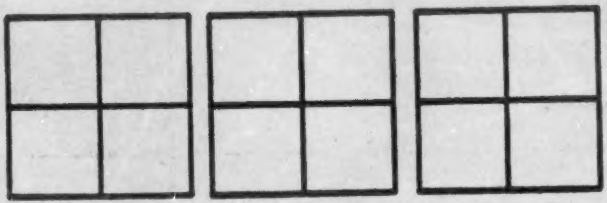

= ____

100?

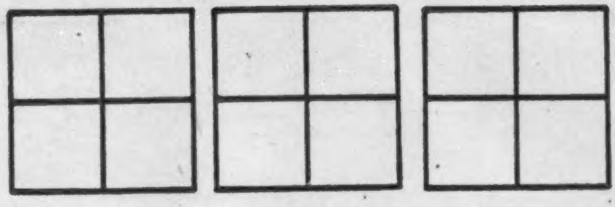
Color a shape with an area of 100 cm^2.



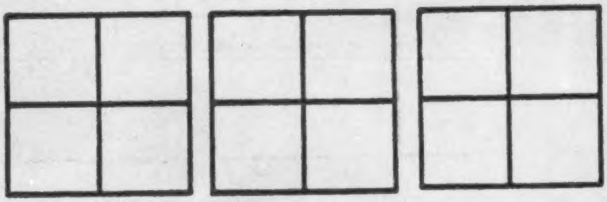
Put 100 on the Minicomputer using exactly two checkers.



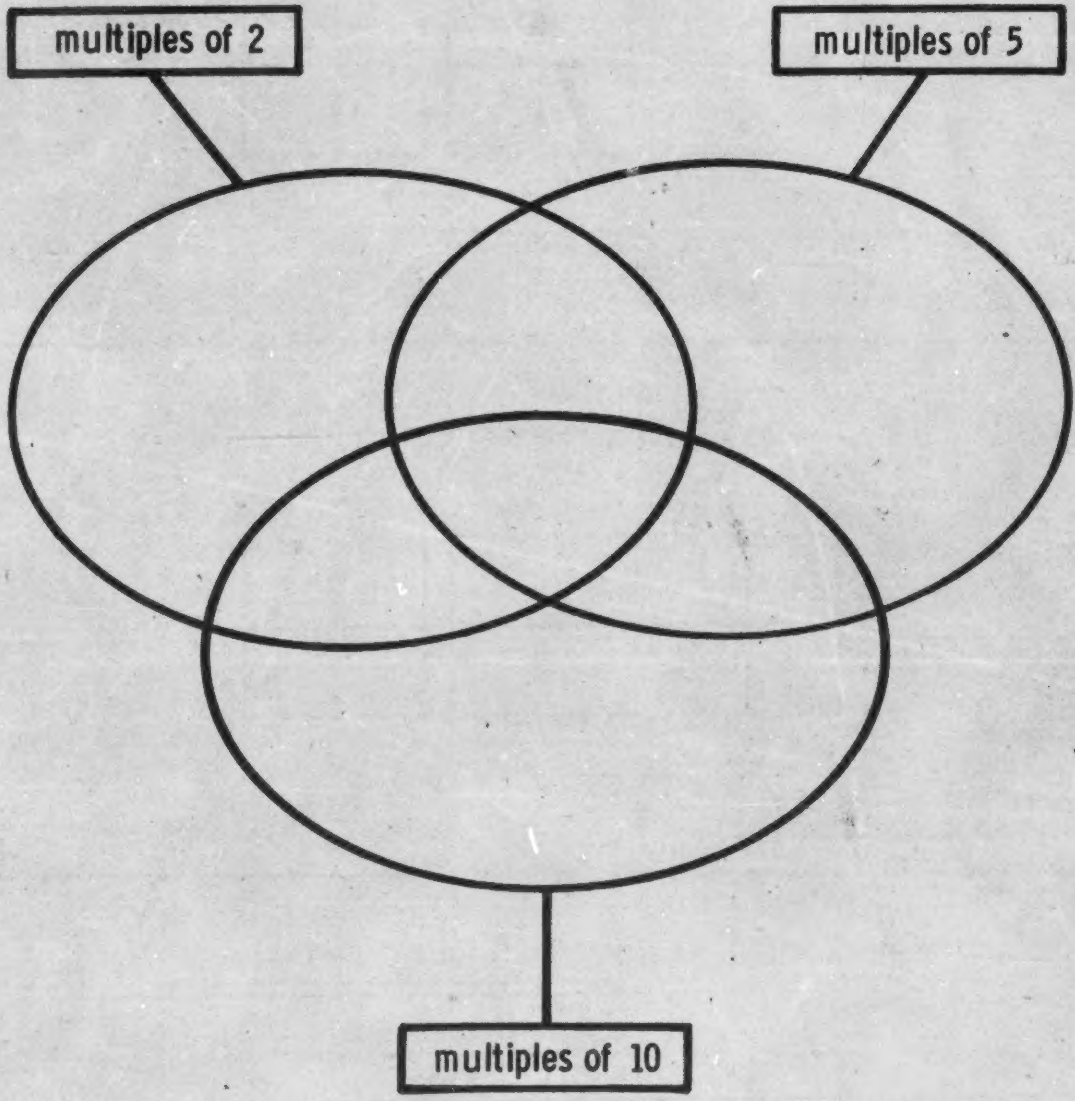
Put 100 on the Minicomputer using exactly three checkers.



Put 100 on the Minicomputer using exactly four checkers.



Draw and label a dot for 100 in this picture.

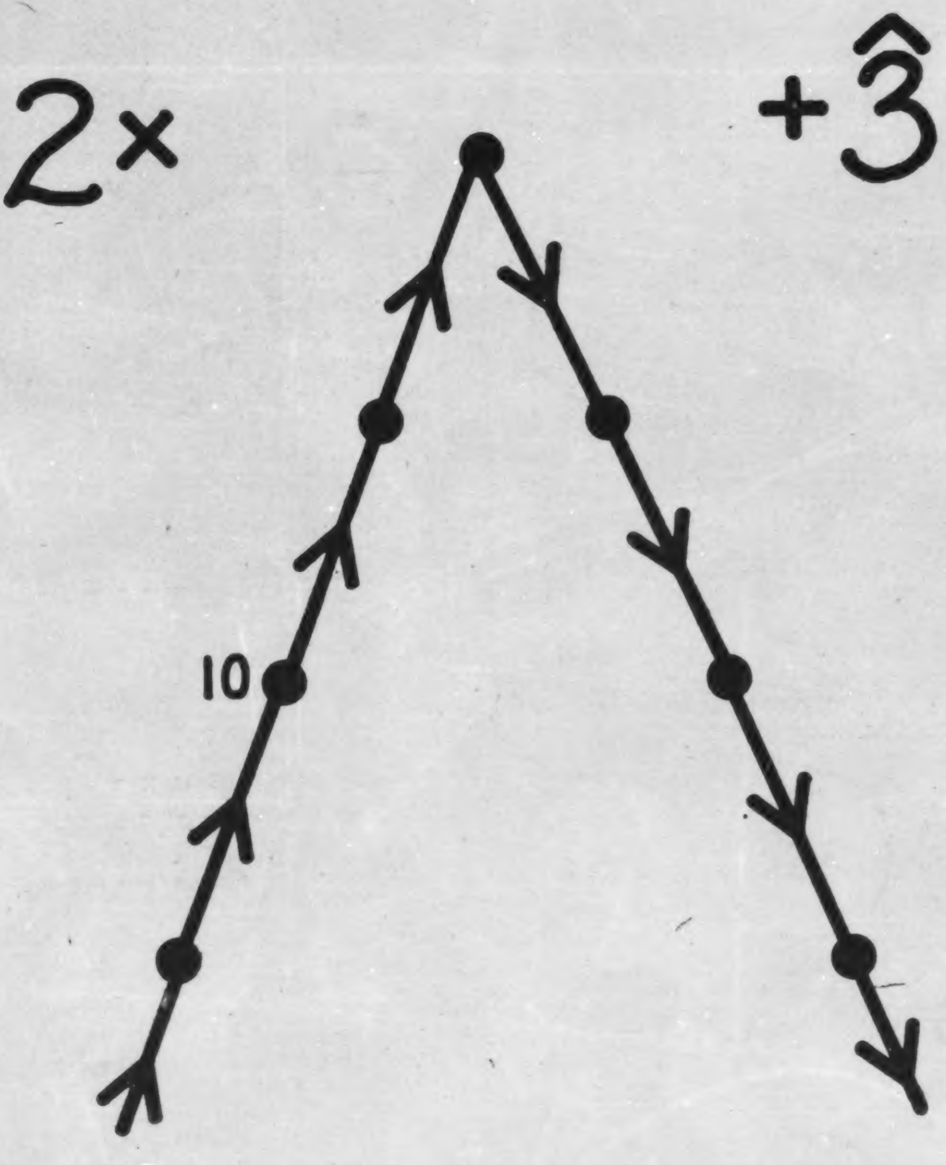


multiples of 2
multiples of 5
multiples of 10

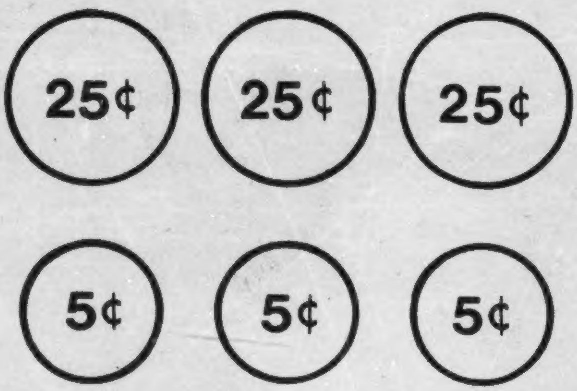
142

Label the dots.

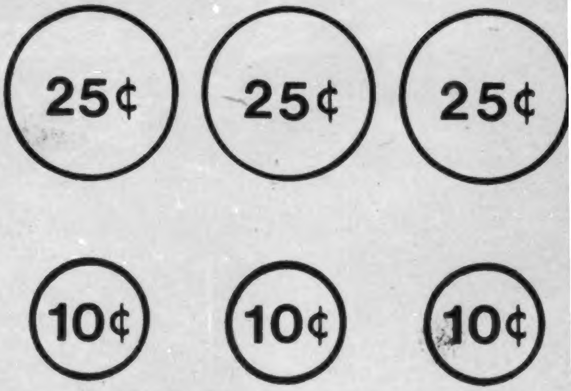
If 100 is not in this picture, extend it to include 100.



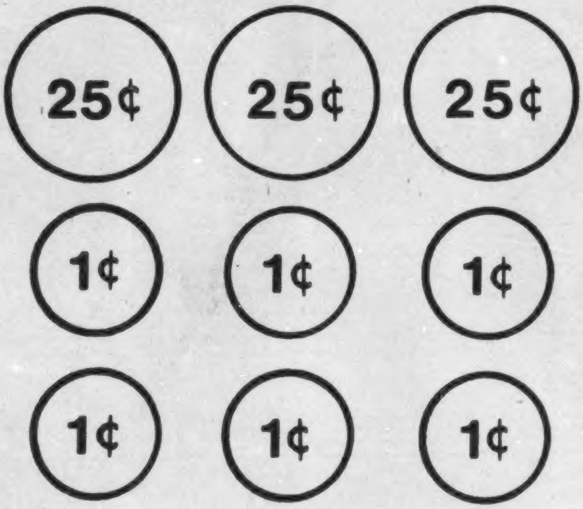
How much money?



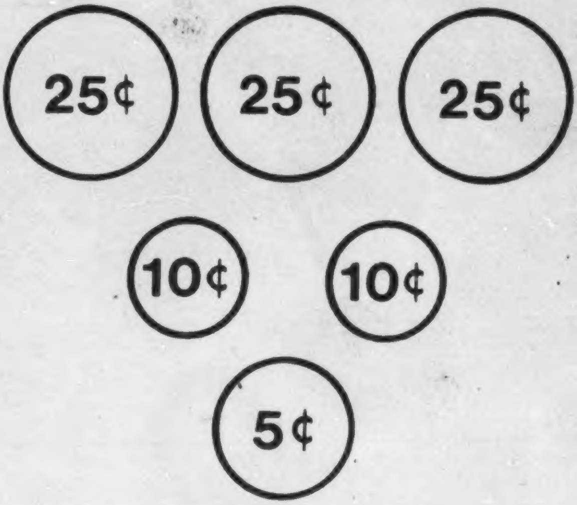
______


25¢
25¢
25¢
10¢
10¢
10¢

______


25¢
25¢
25¢
1¢
1¢
1¢
1¢
1¢
1¢

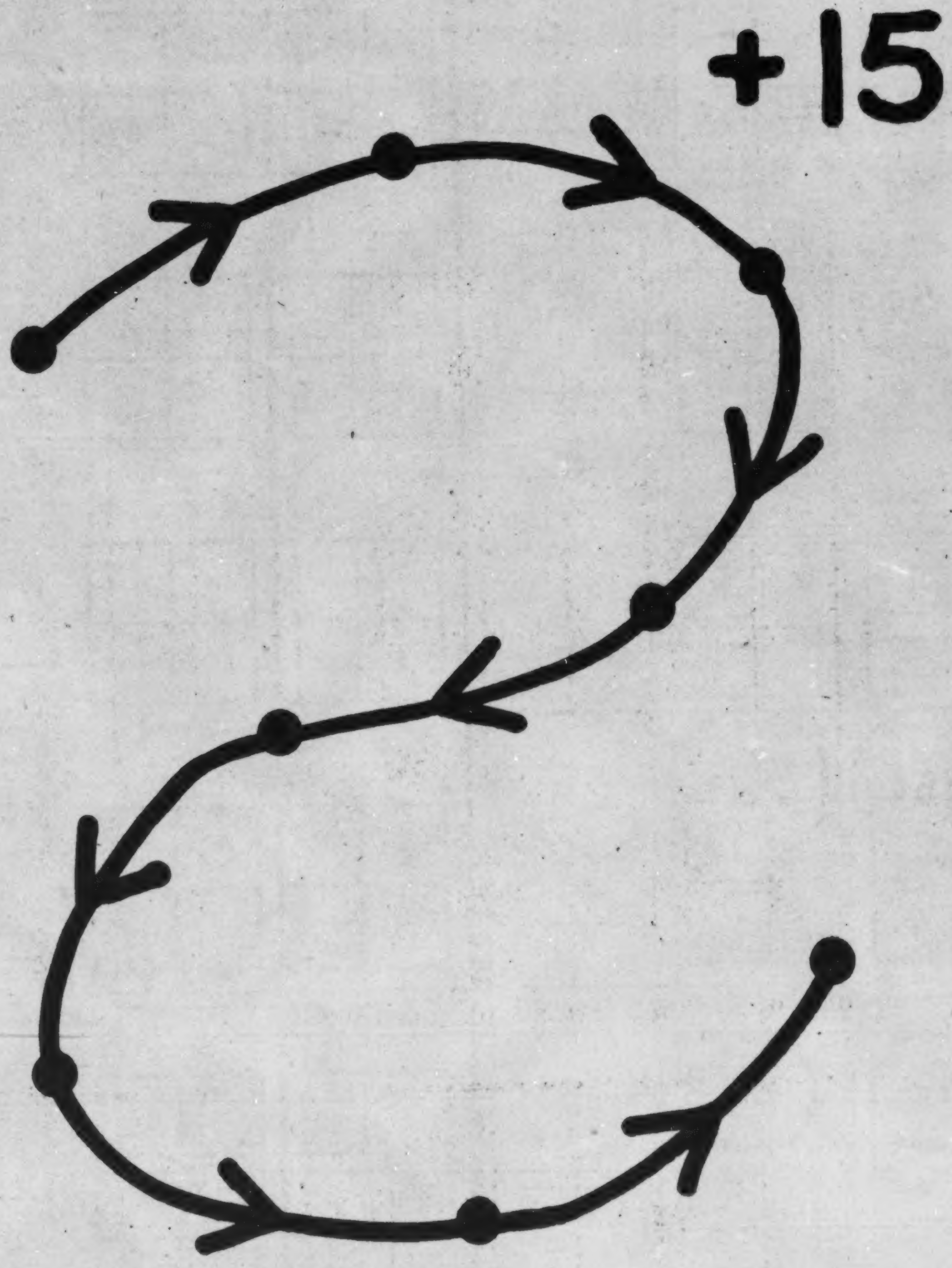
______


25¢
25¢
25¢
10¢
10¢
5¢

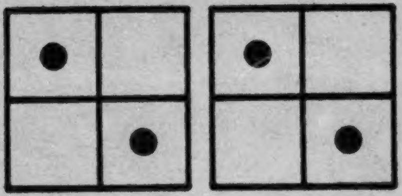
______

100 is the smallest number in this arrow picture.

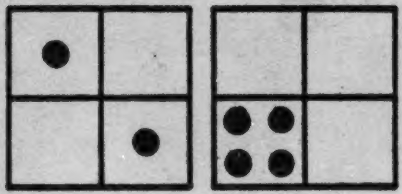
Label the dots.



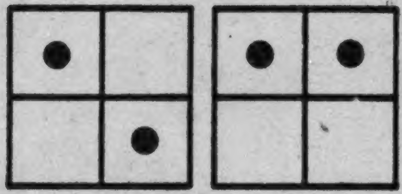
What number is on the Minicomputer?



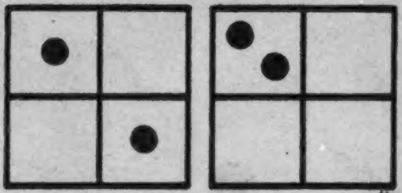
= ____



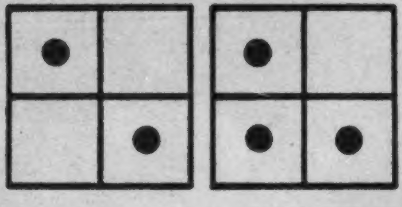
= ____



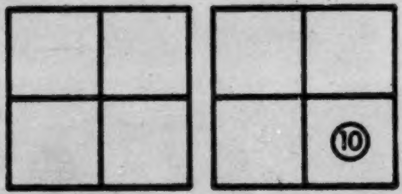
= ____



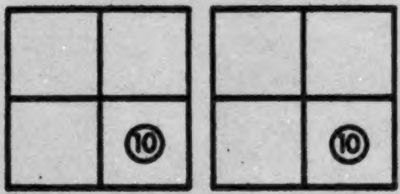
= ____



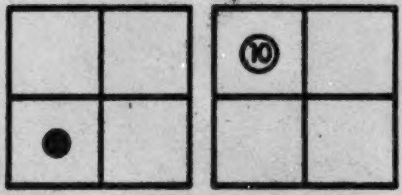
= ____



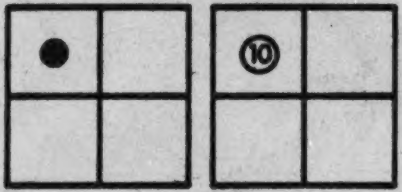
= ____



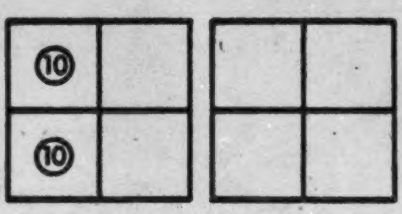
= ____



= ____



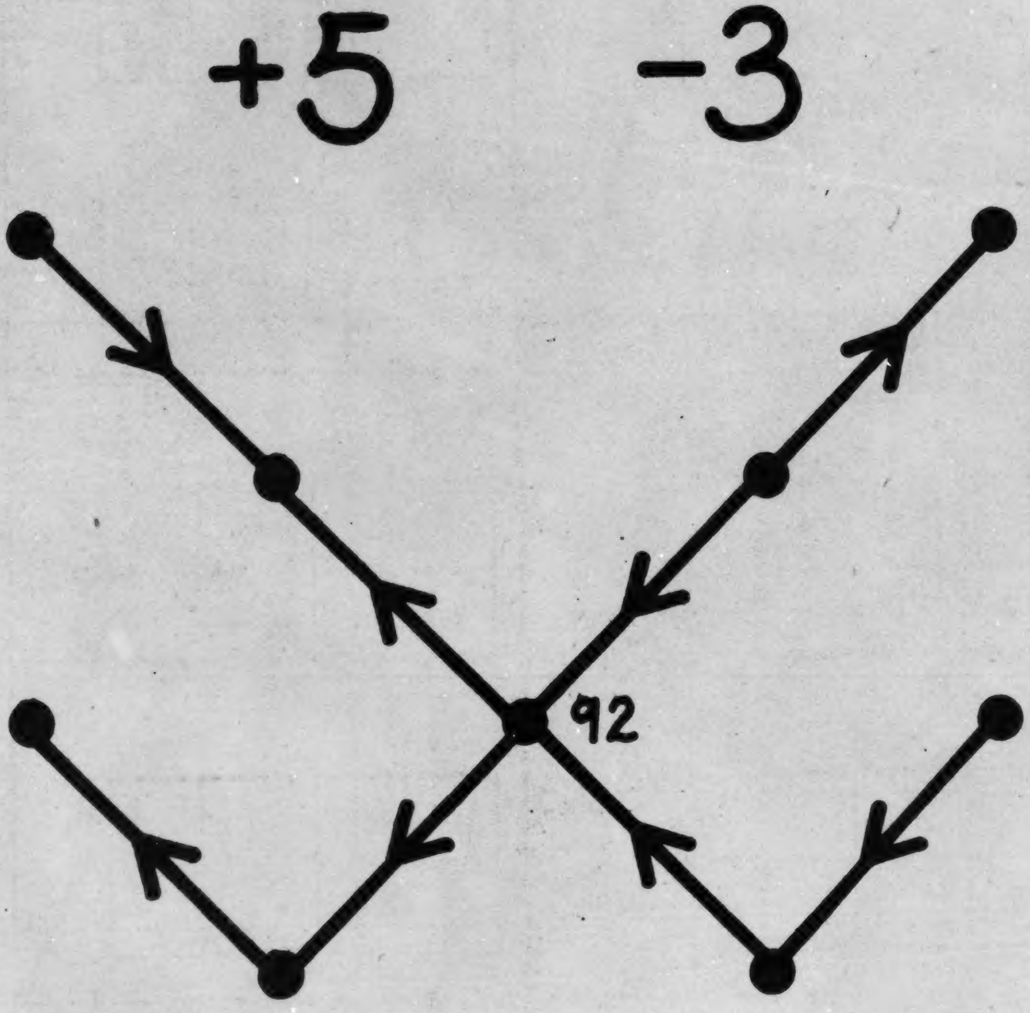
= ____



= ____

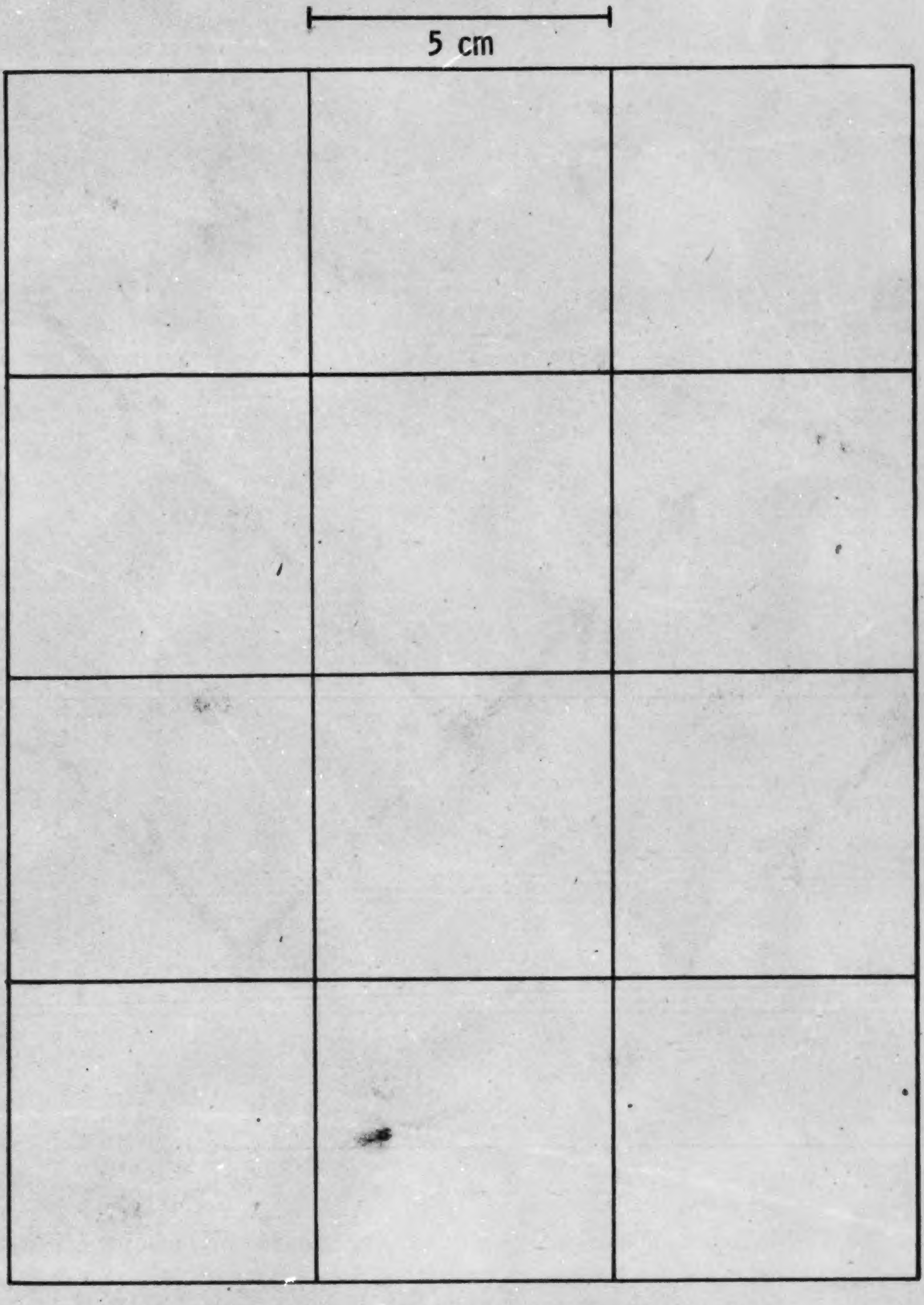
Label the dots.

If 100 is not in this picture, extend it to include 100.



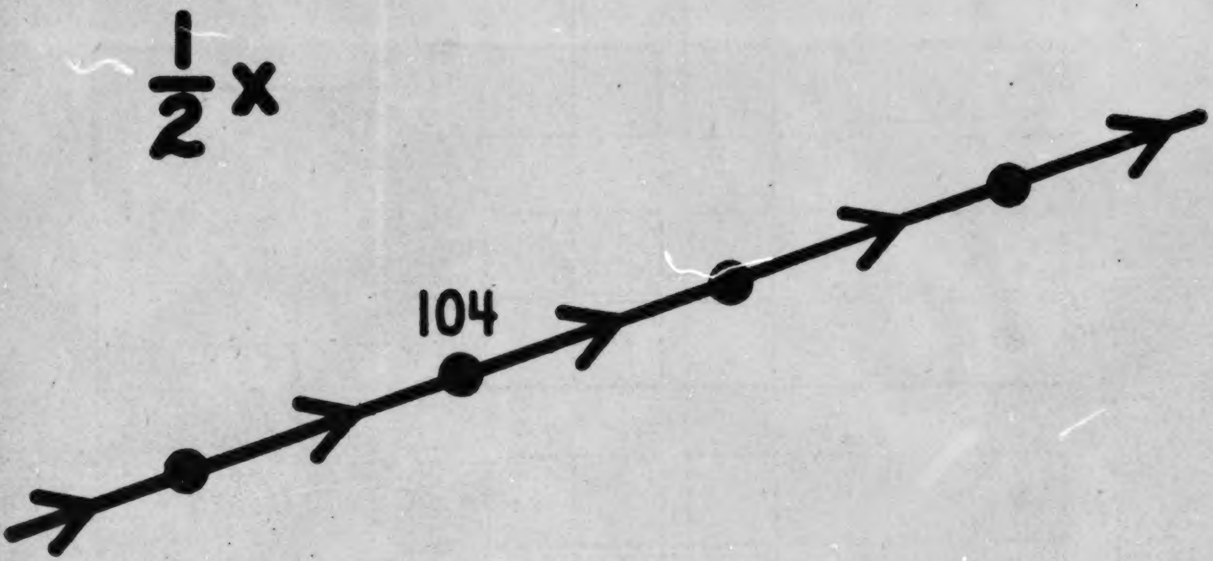
Draw a zigzag path which is 100 cm long.

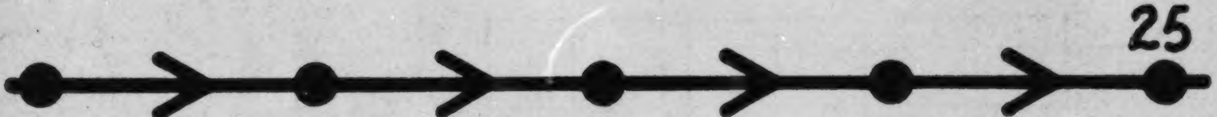
Your path should follow the lines.

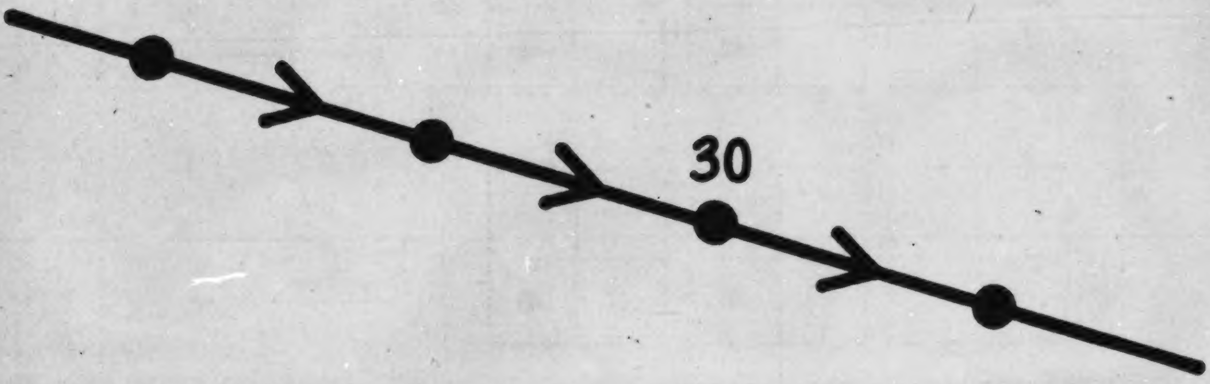


Label the dots.

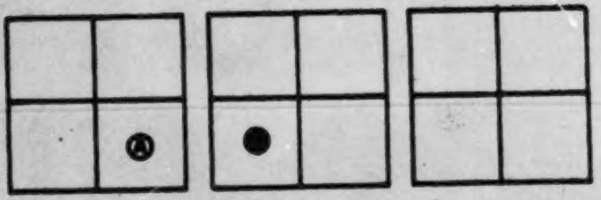
If 100 is not in this picture, extend it to include 100.


$\frac{1}{2}x$
104

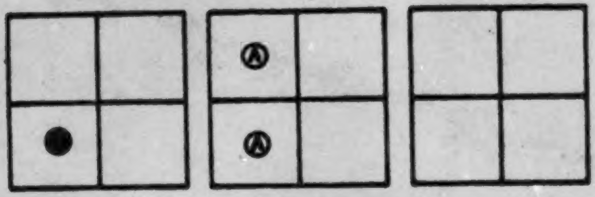




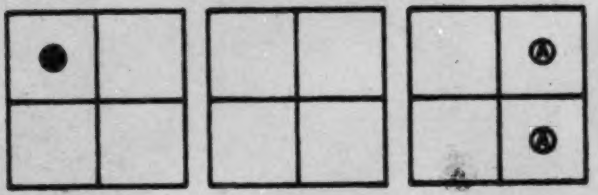
What number is on the Minicomputer?



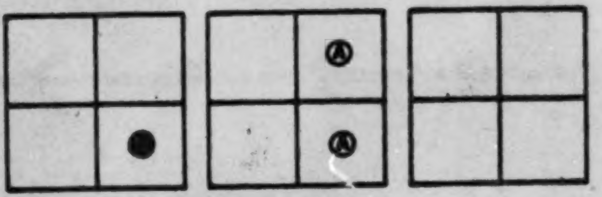
= ____________



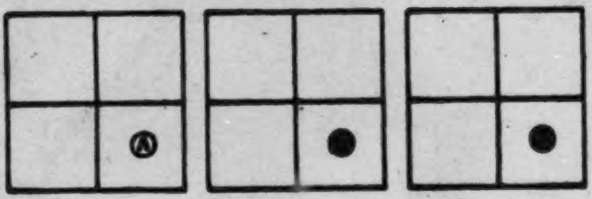
= ____________



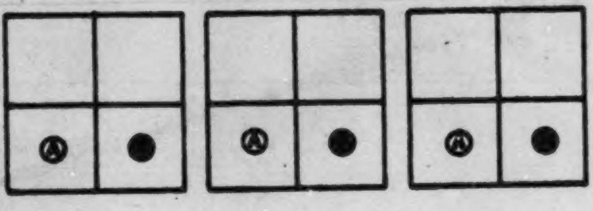
= ____________



= ____________



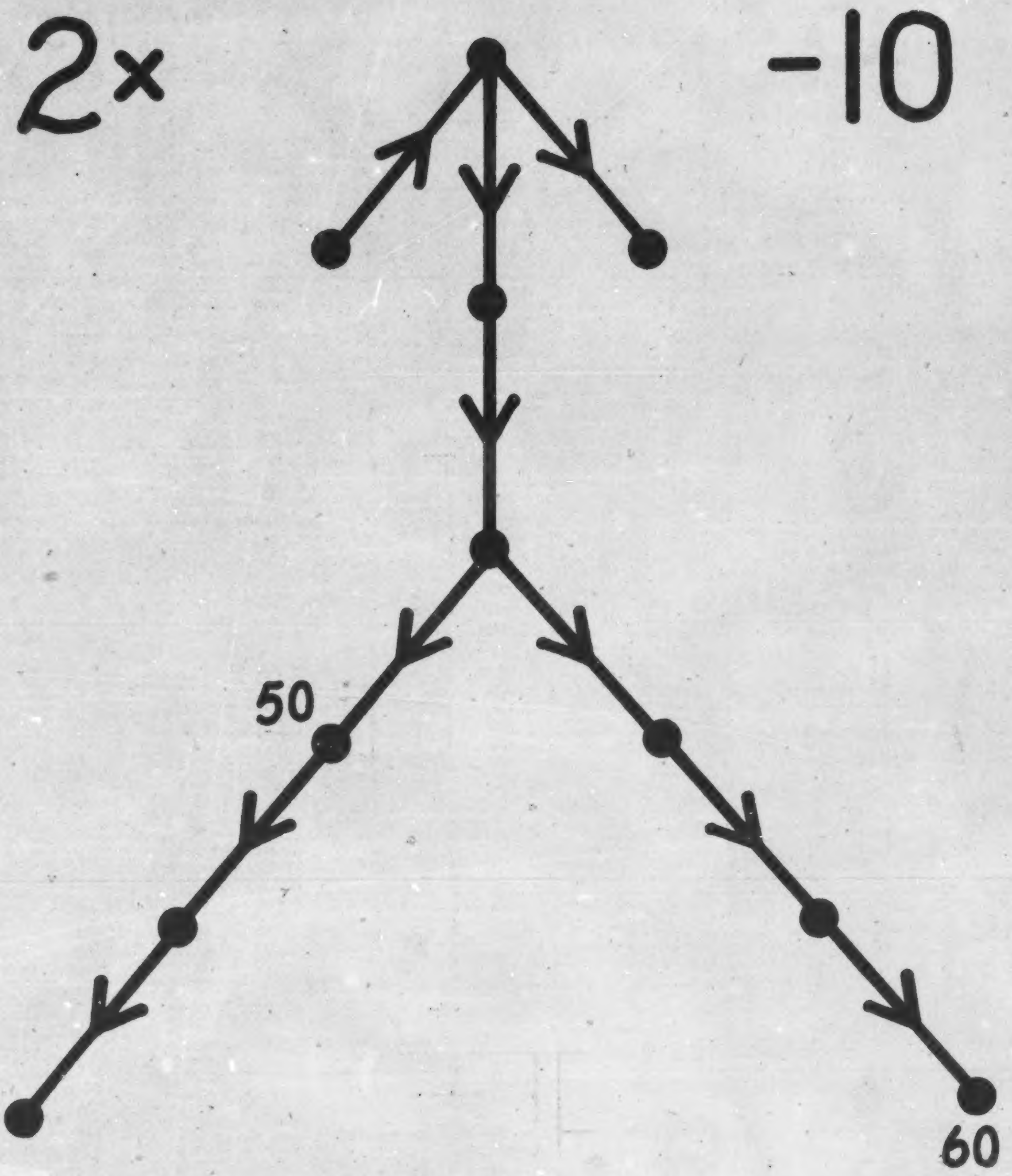
= ____________



= ____________

Label the dots.

If 100 is not in this picture, extend it to include 100.



Build a red-blue road from 1 to 100.

3x

+1

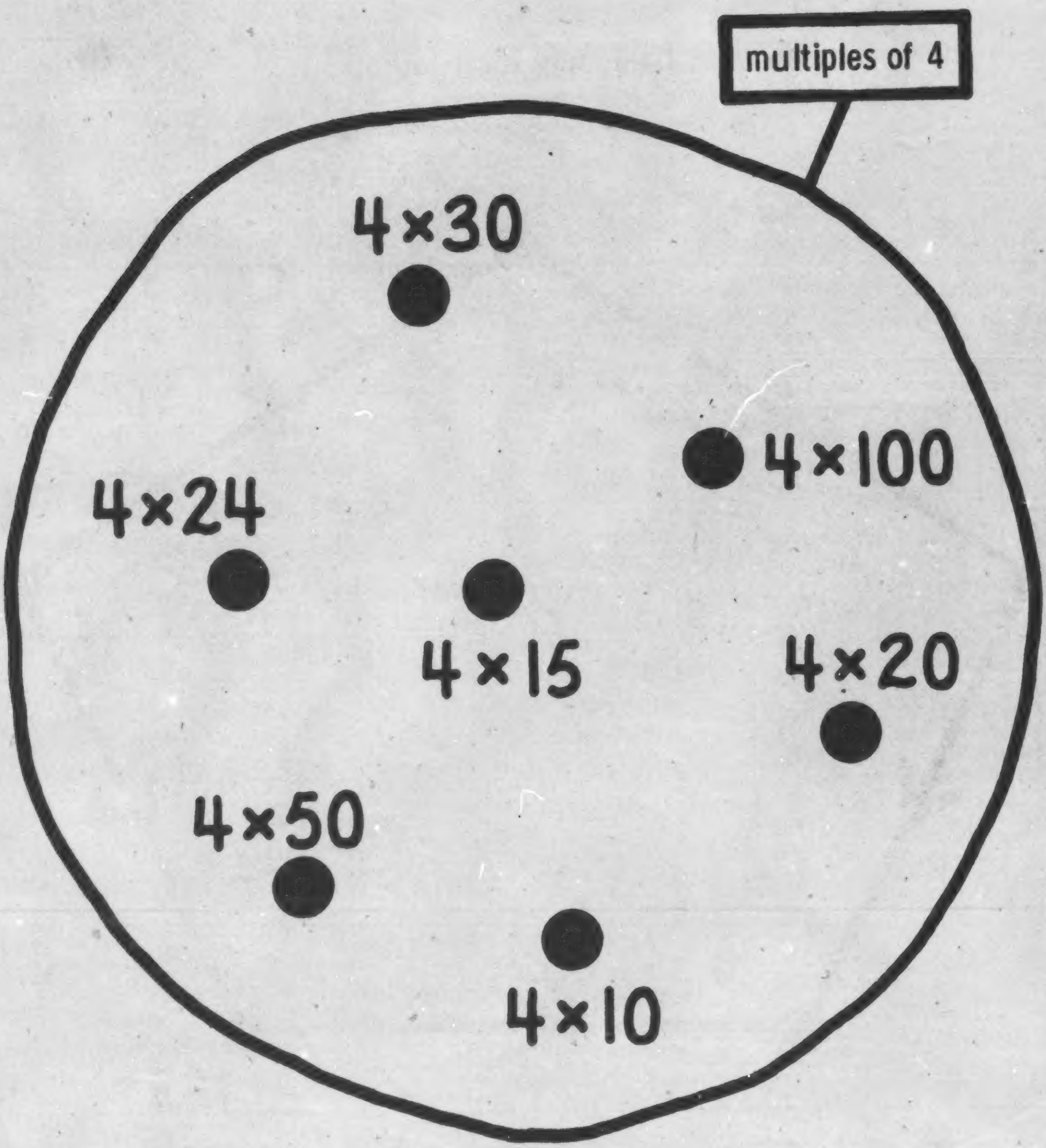
100

●

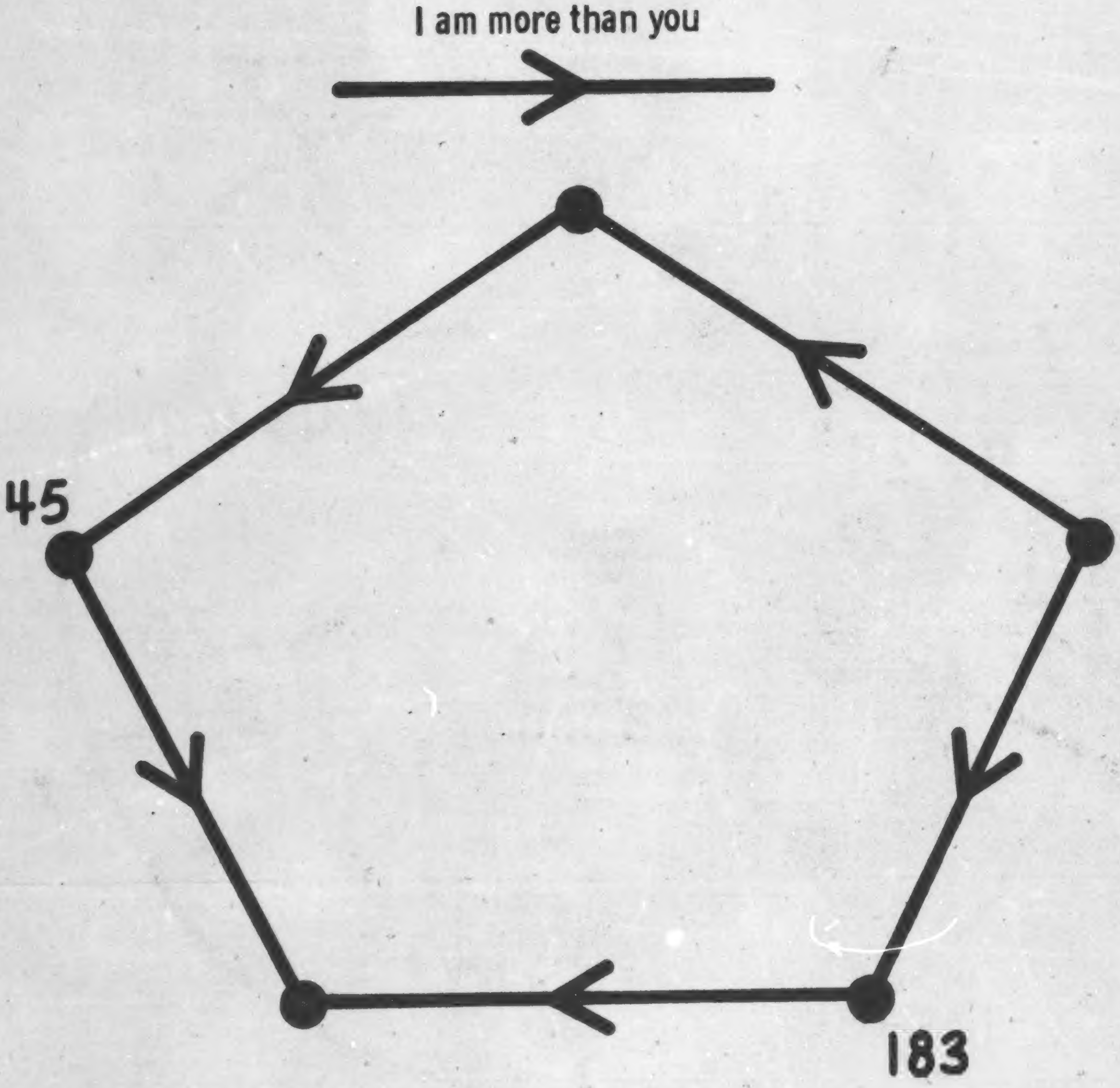
●

1

Find or put 100 in this picture.

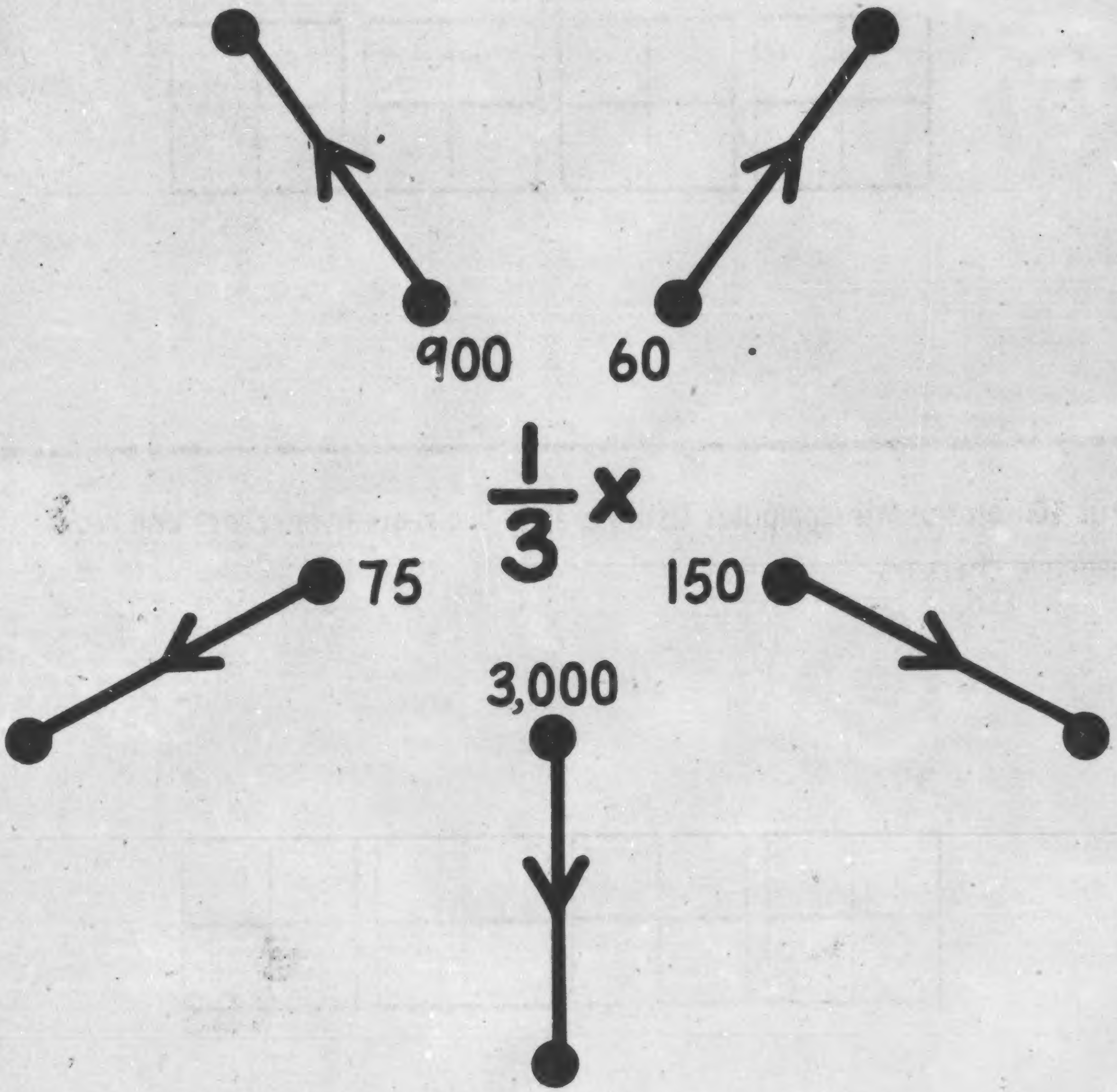

multiples of 4
4×30
4×100
4×24
4×15
4×20
4×50
4×10

100 is in this arrow picture. Label all the dots. Many answers are possible.

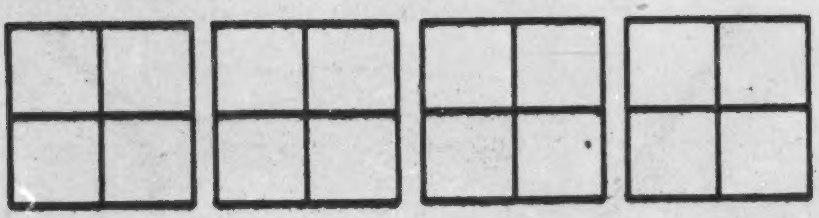

I am more than you
45
183

Label the dots.

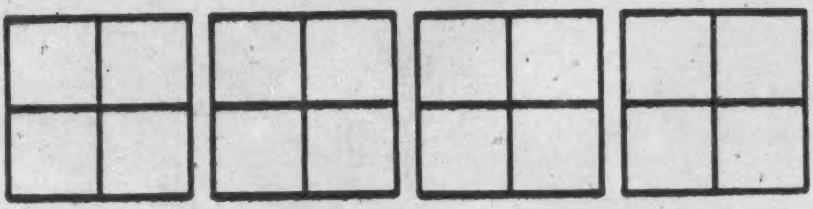
If 100 is not in this picture, extend it to include 100.


900
60
1/3 x
75
150
3,000

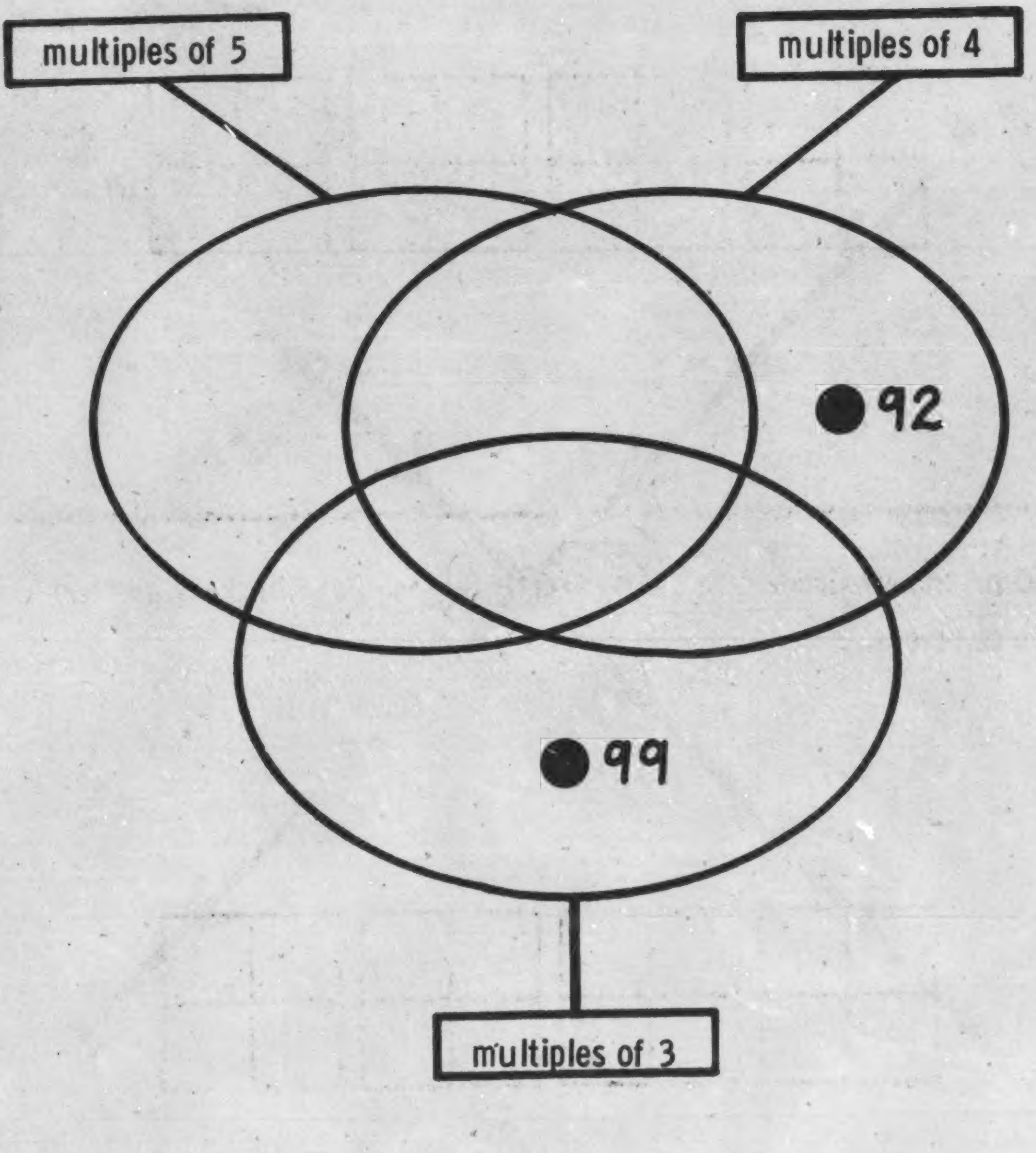
Put 100 on the Minicomputer using exactly five checkers.



Put 100 on the Minicomputer using exactly two regular checkers and two negative checkers.

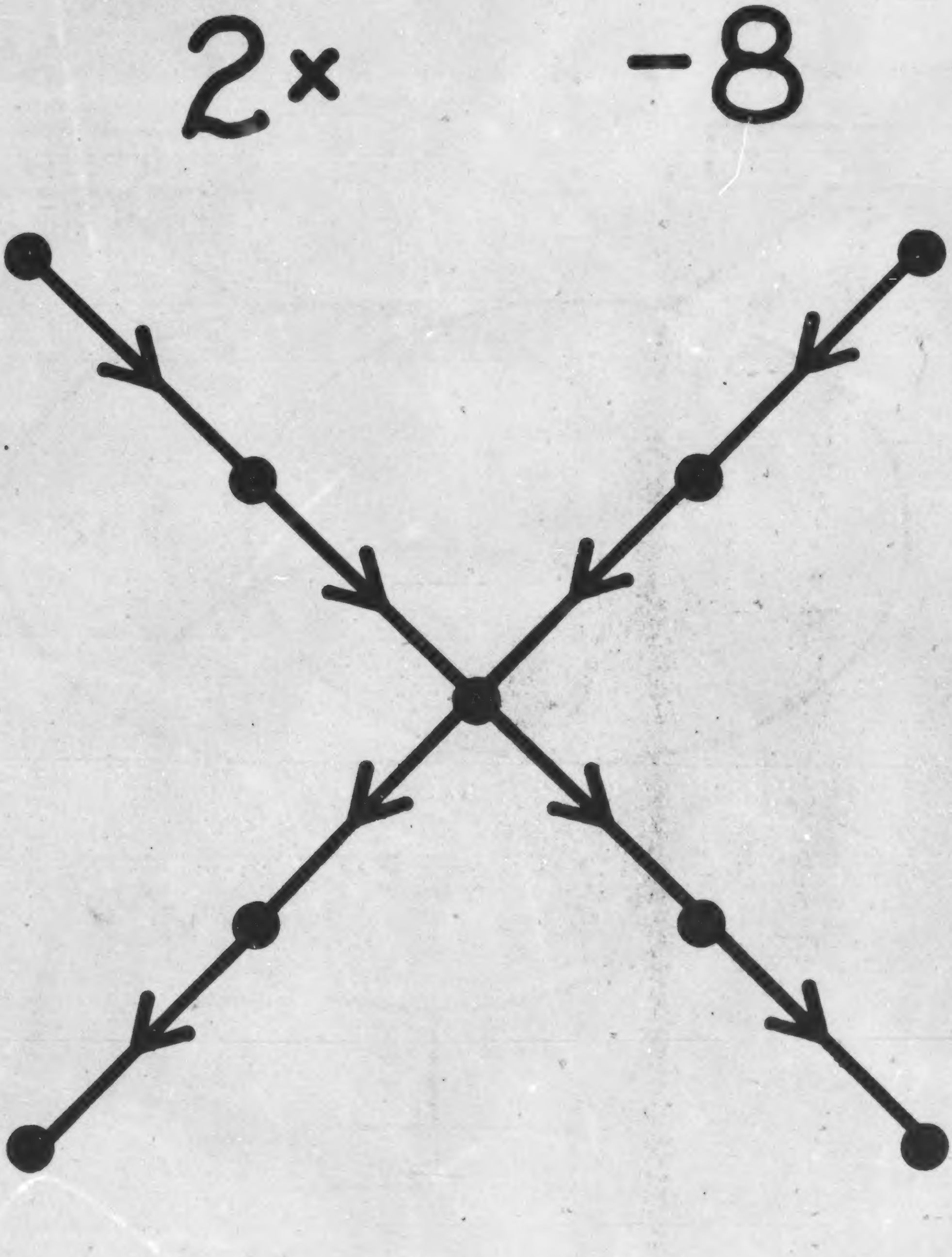


Draw and label a dot for 100 in this picture.


multiples of 5
multiples of 4
92
99
multiples of 3

100 is the largest number in this arrow picture.

Label the dots.



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Name ______________________

3-42001

SE

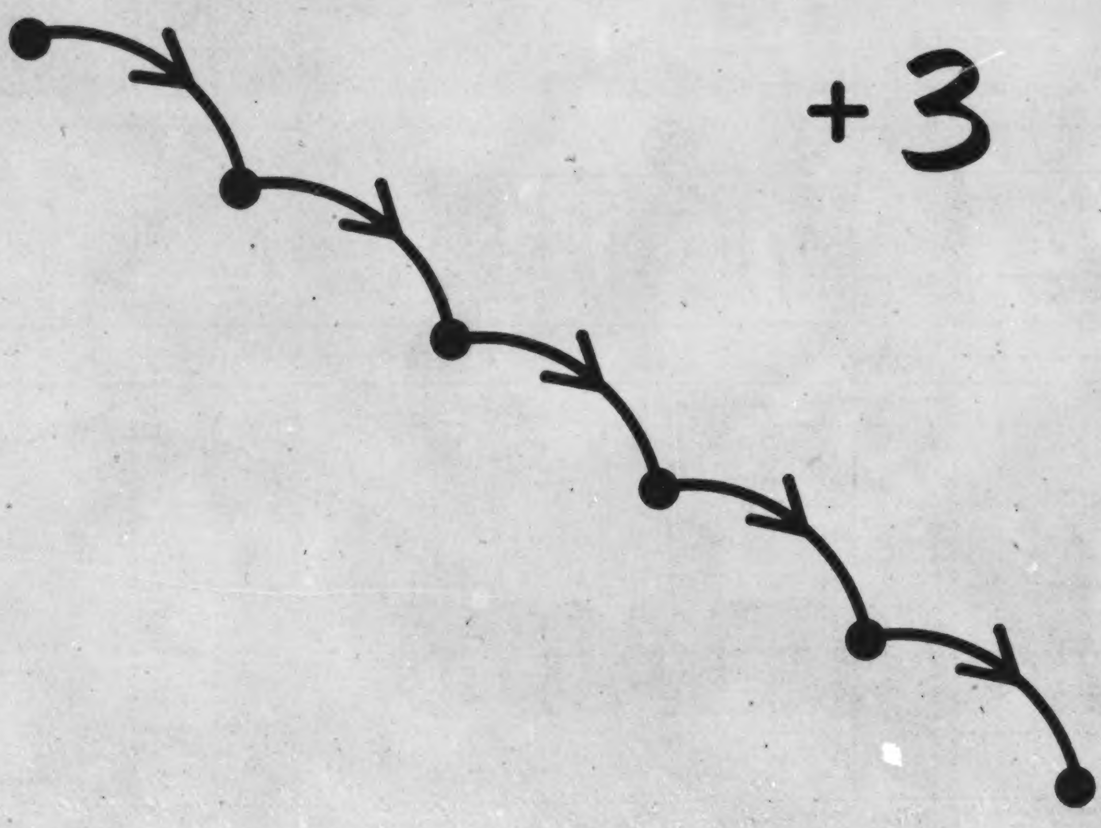
Fishing for Numbers

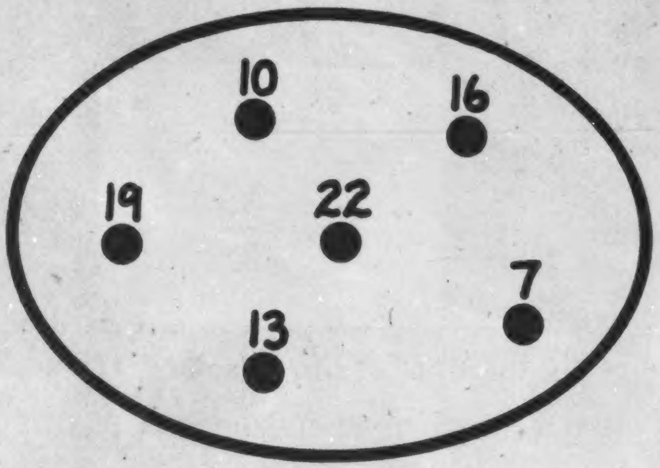
In each situation, put the numbers in the black string into the picture. Sometimes you will put the numbers into a string picture, sometimes into an arrow picture, sometimes on the Minicomputer, and sometimes in number stories. Use each number exactly once.

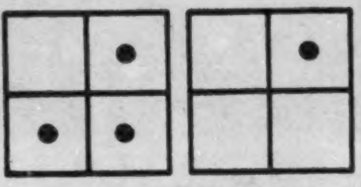
PART III

159

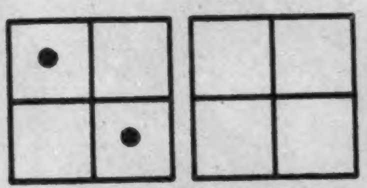
MAY 16 1980


+3

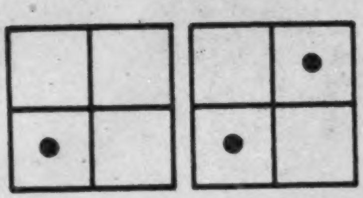




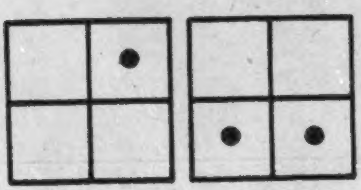
= ____



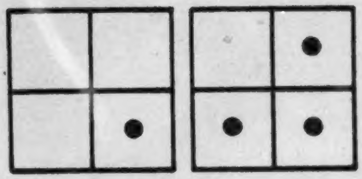
= ____



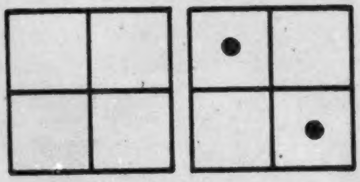
= ____



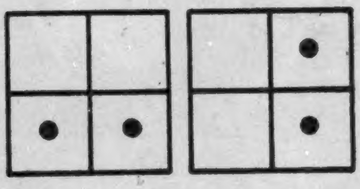
= ____



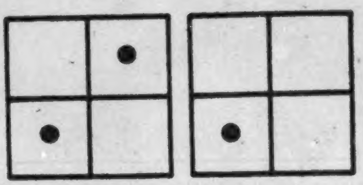
= ____



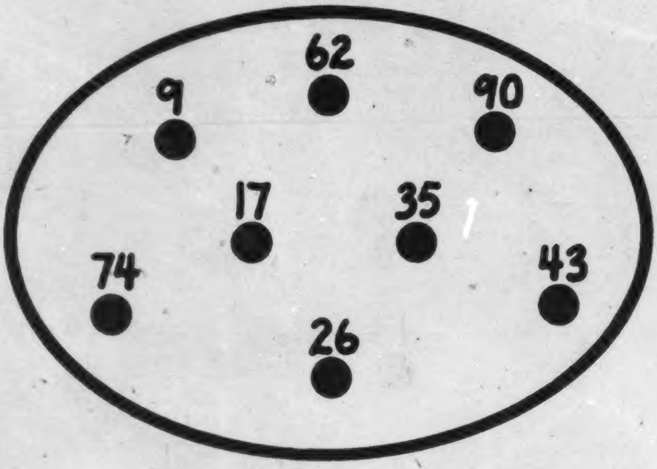
= ____

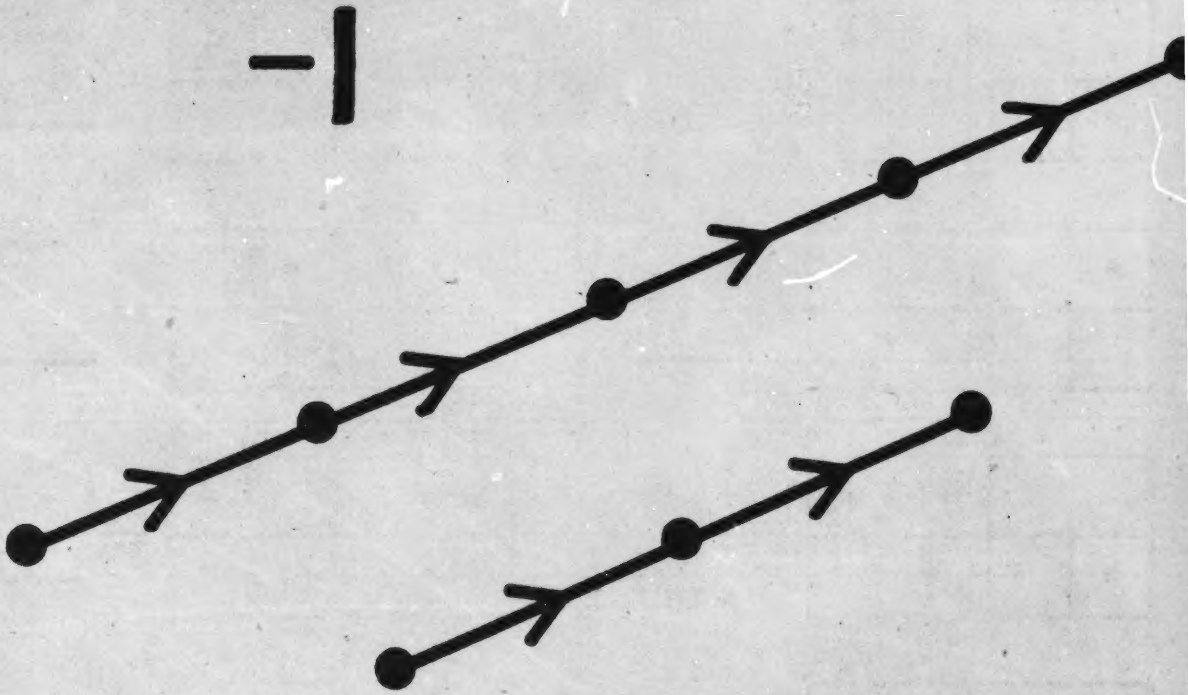


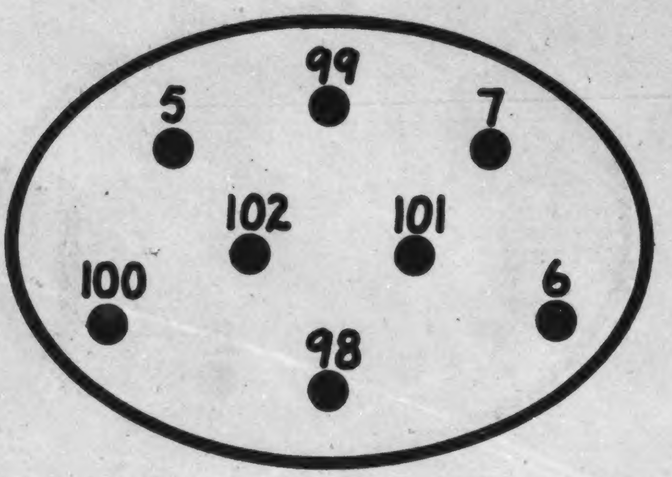
= ____

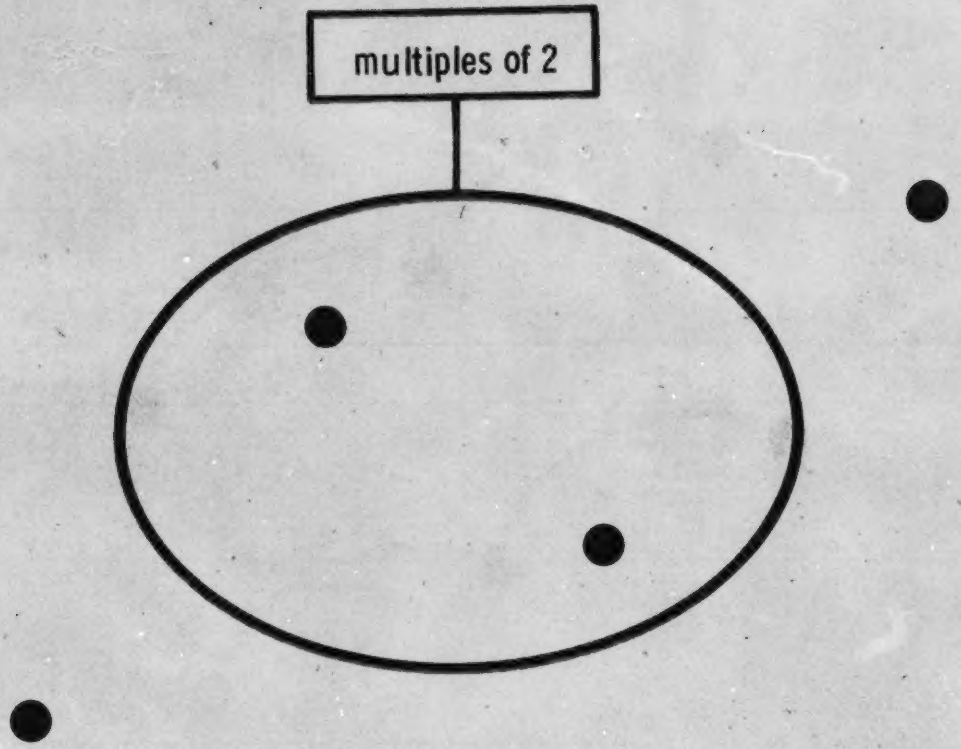


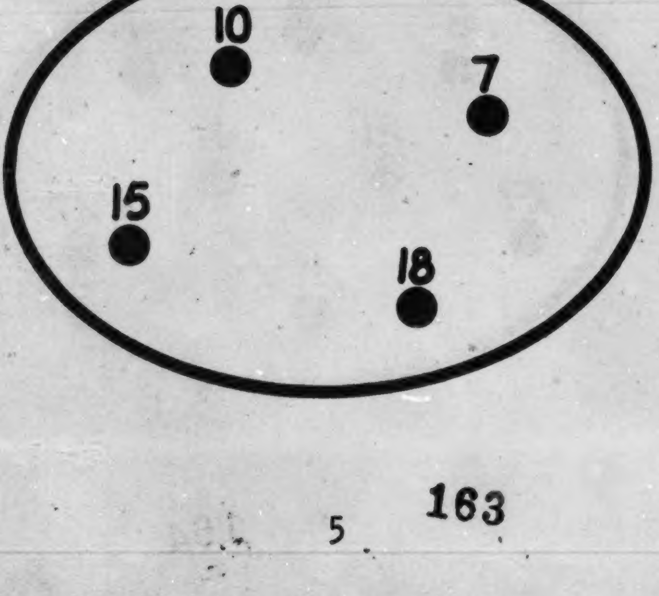
= ____

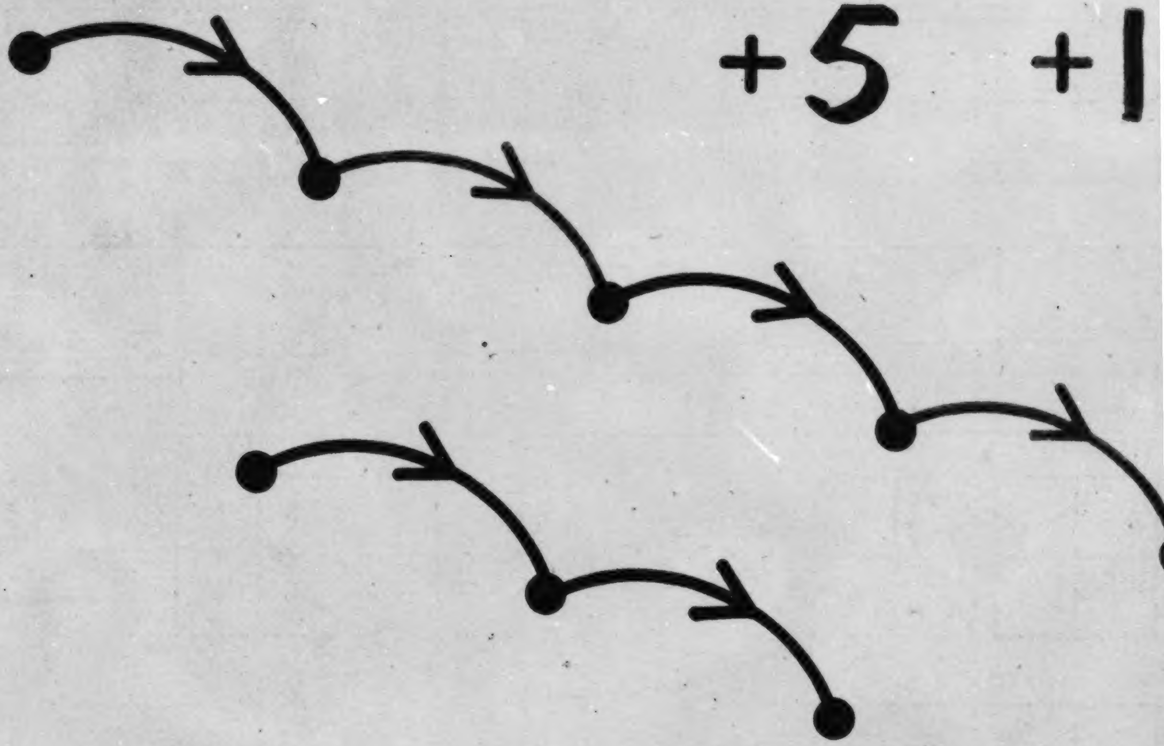



-1




multiples of 2

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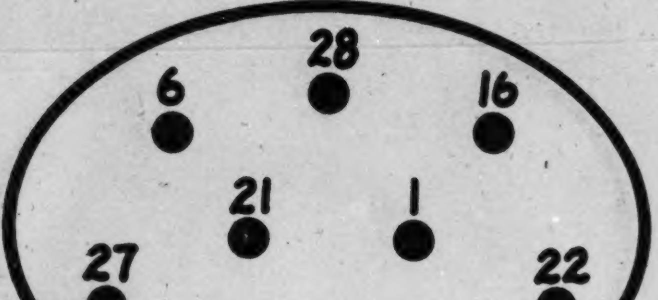

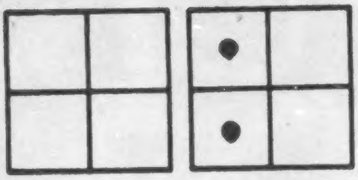

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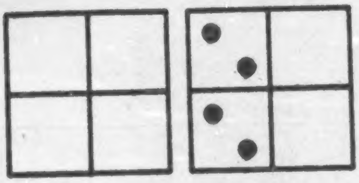

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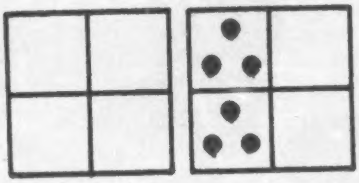

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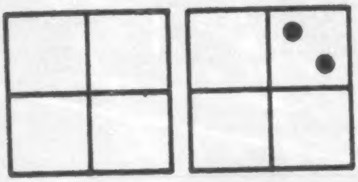

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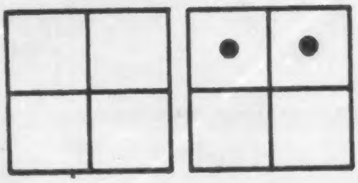

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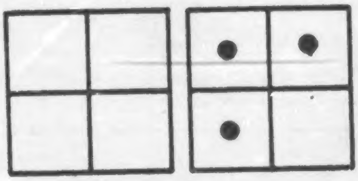

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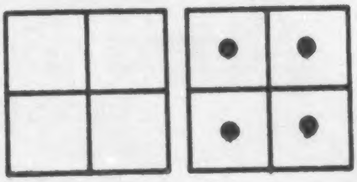

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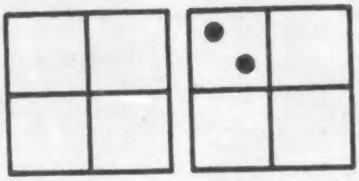

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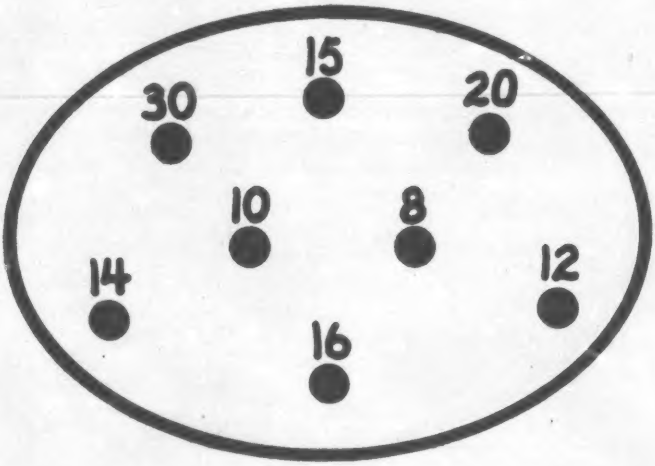

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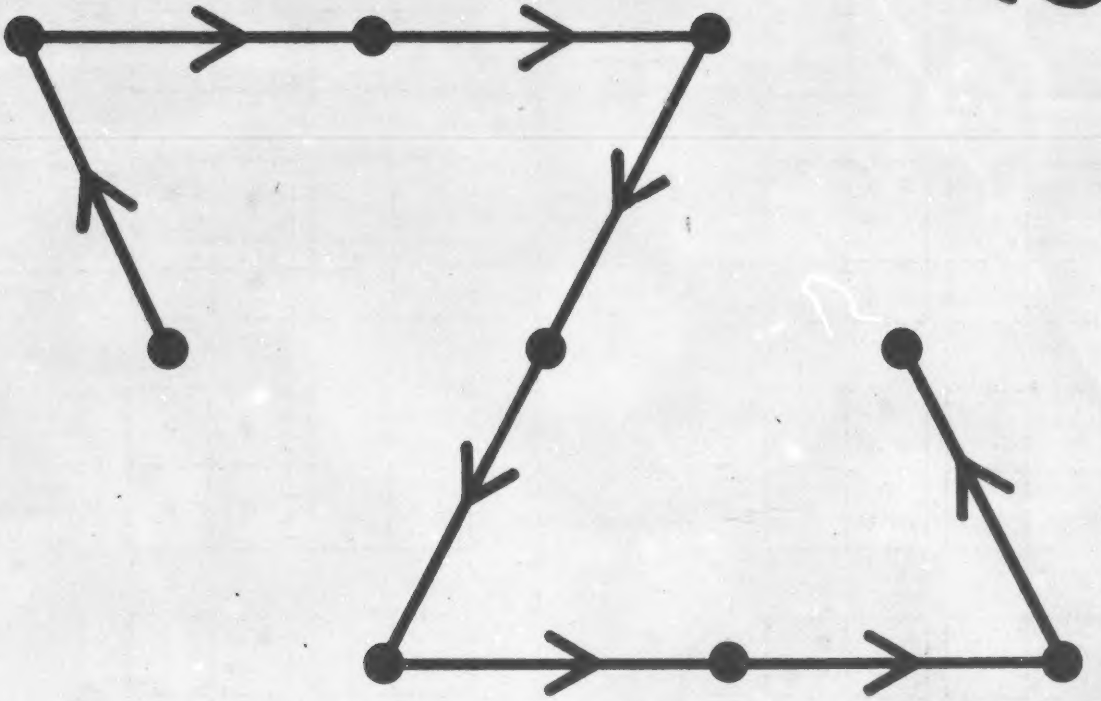

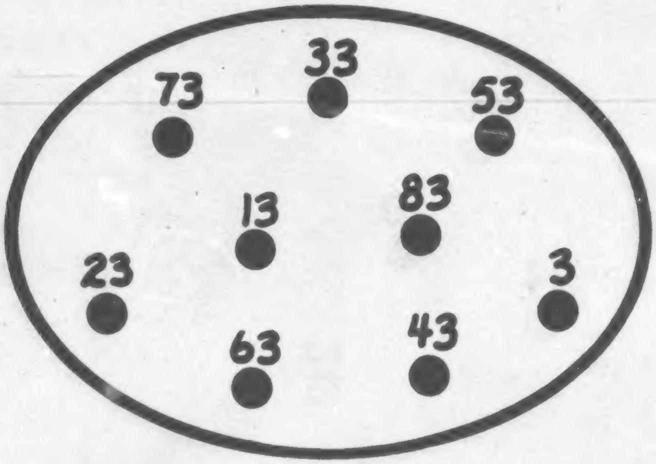
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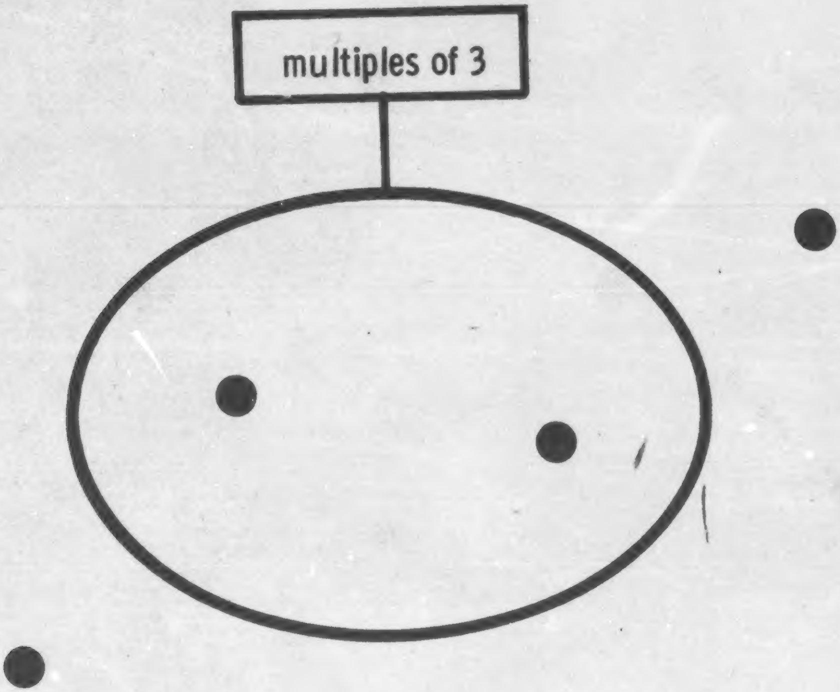
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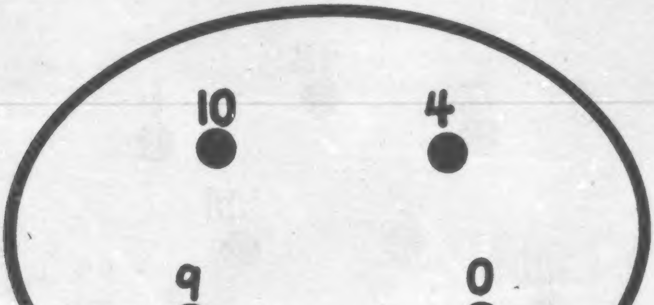

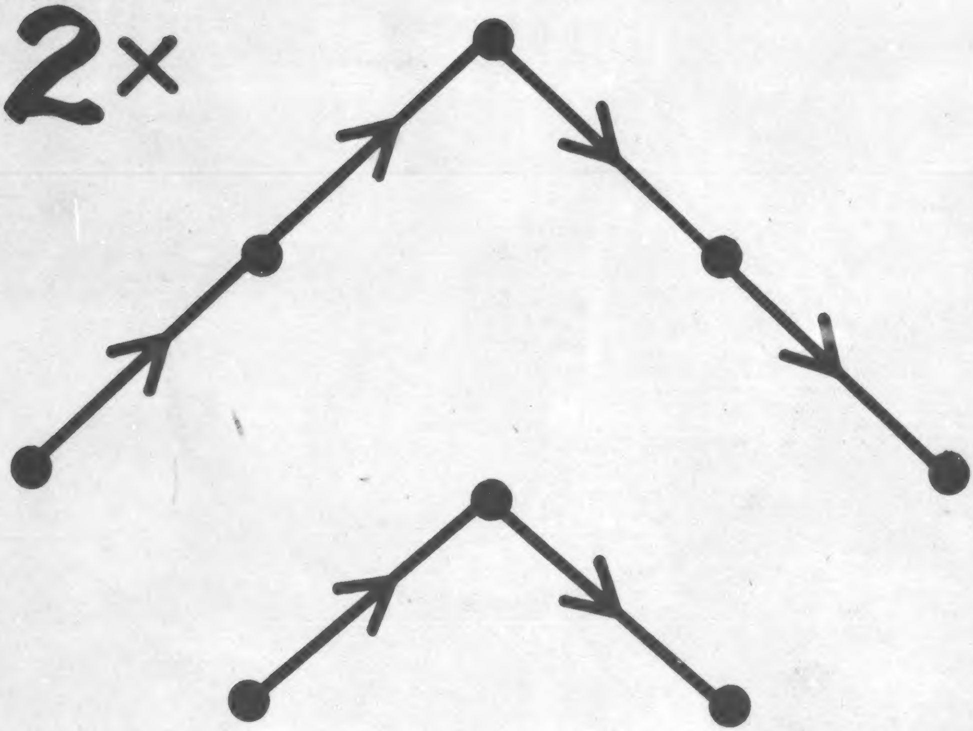
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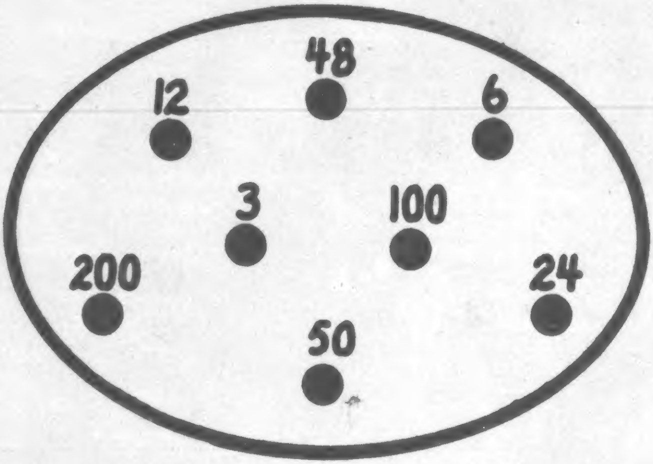

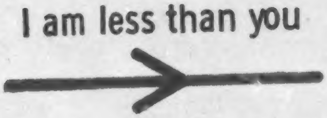
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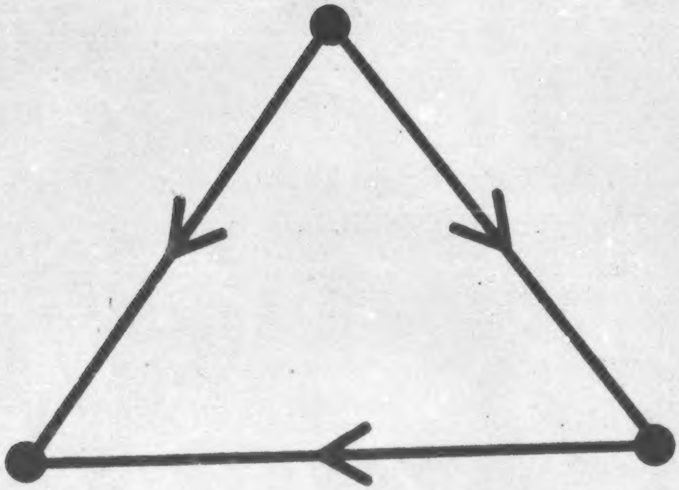
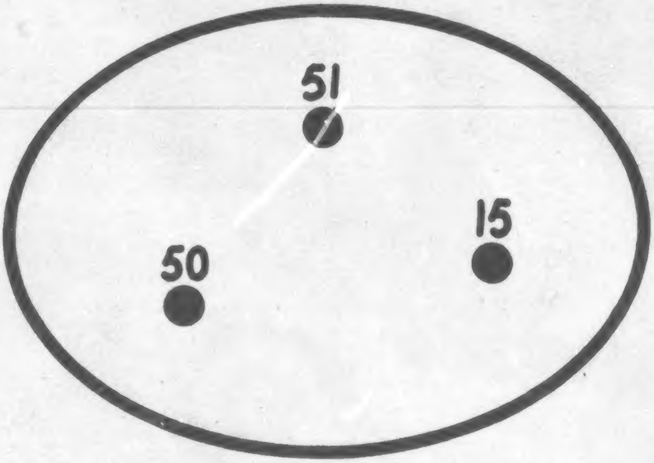




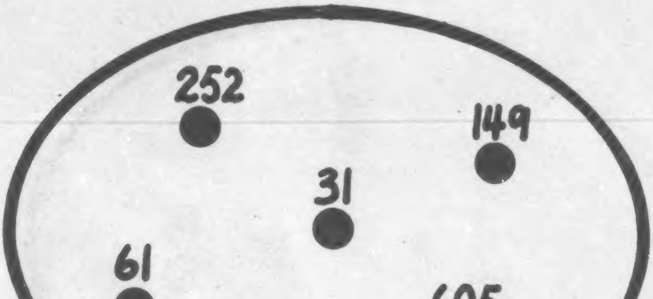
$$\begin{array}{r} 45 \\ +16 \\ \hline \end{array}$$

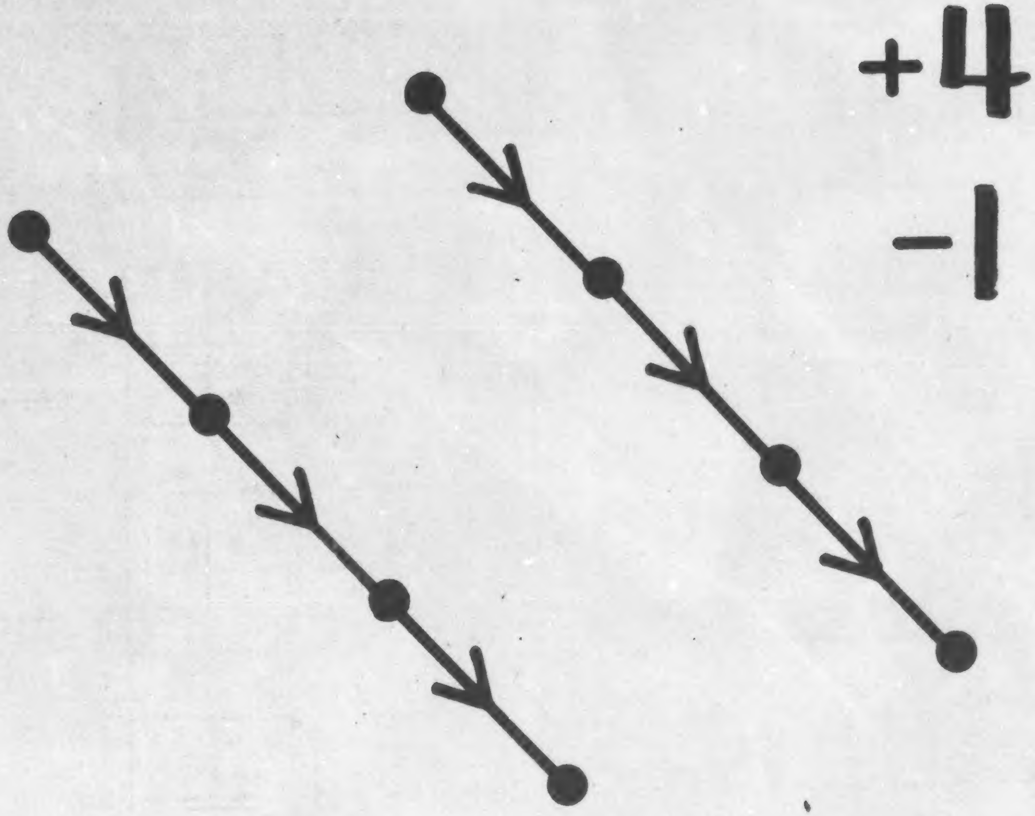
$$\begin{array}{r} 70 \\ +79 \\ \hline \end{array}$$

$$\begin{array}{r} 14 \\ 9 \\ +8 \\ \hline \end{array}$$

$$\begin{array}{r} 287 \\ +318 \\ \hline \end{array}$$

$$\begin{array}{r} 153 \\ +99 \\ \hline \end{array}$$

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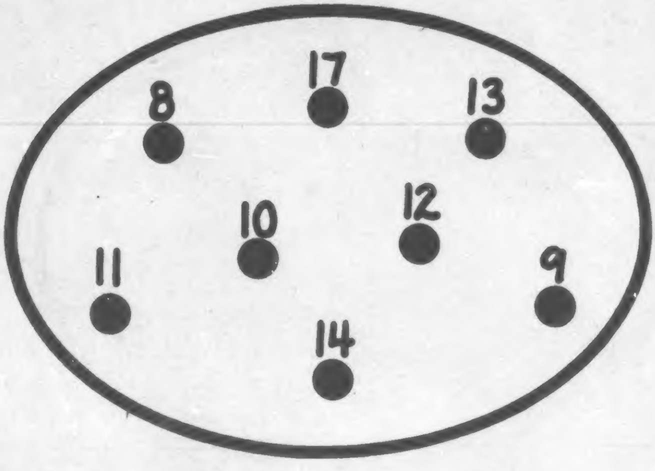

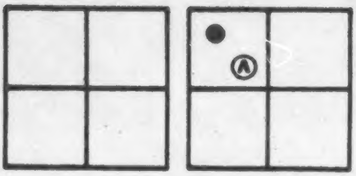

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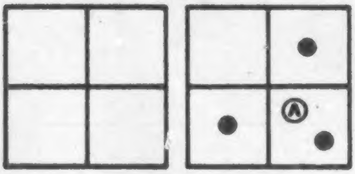

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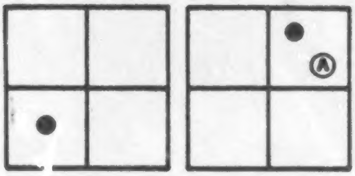

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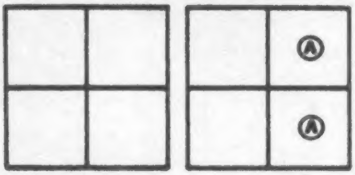

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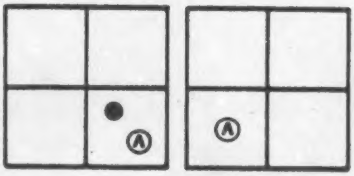

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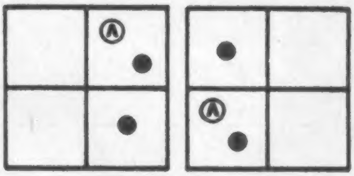

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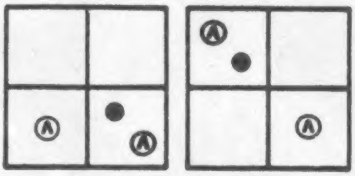

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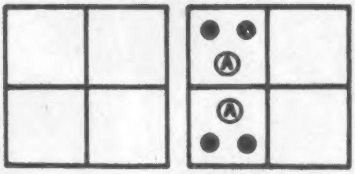

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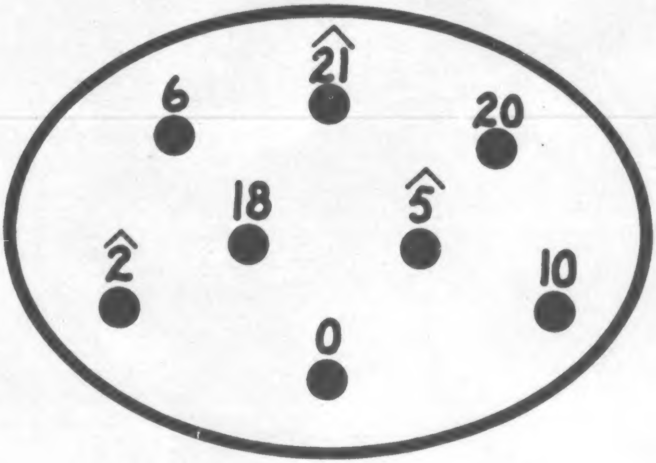
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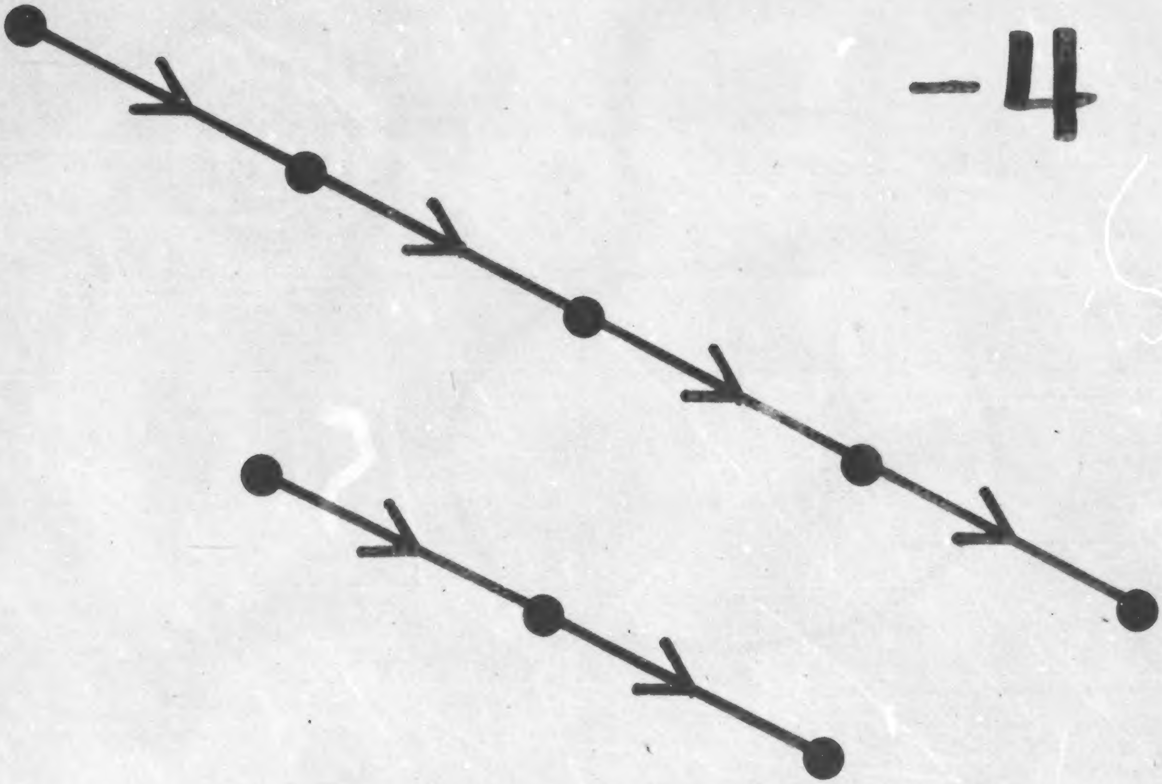
$\hat{2}$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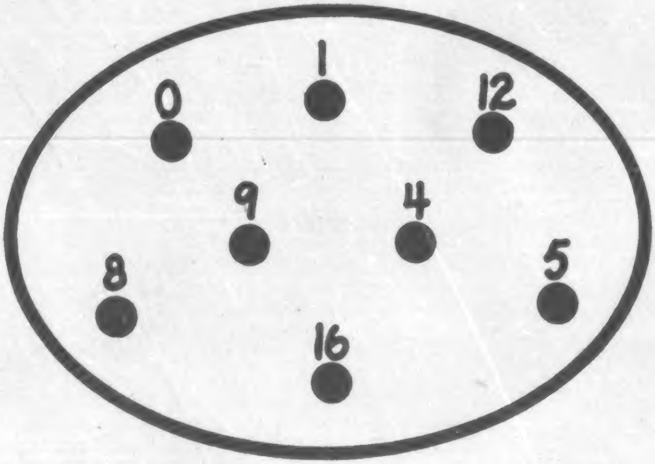

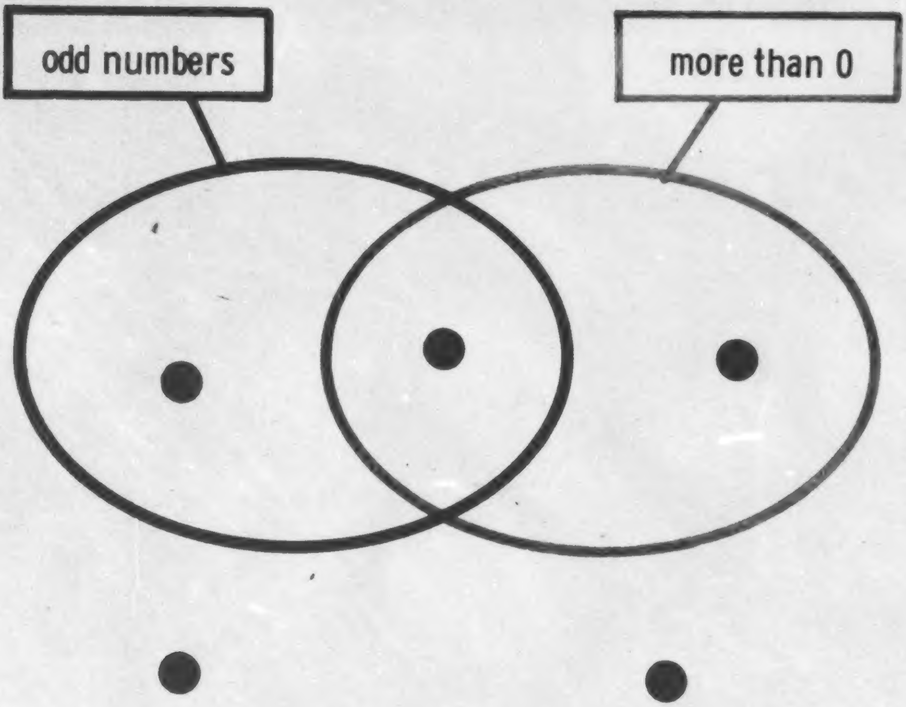
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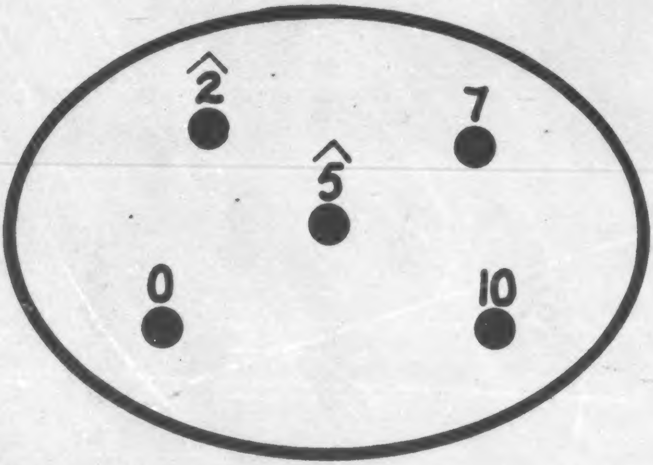
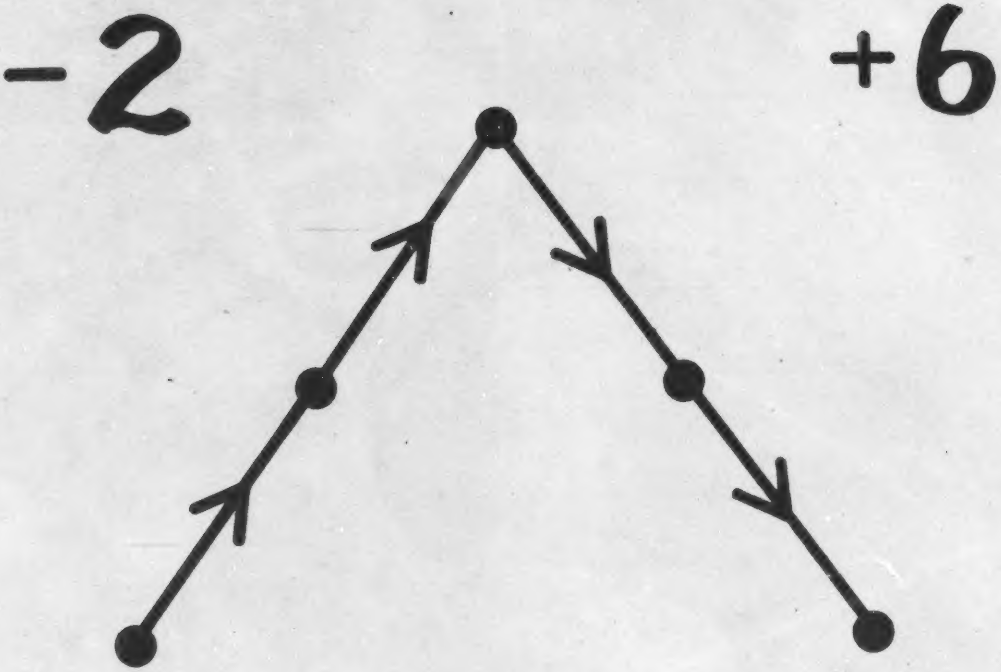
more than 0

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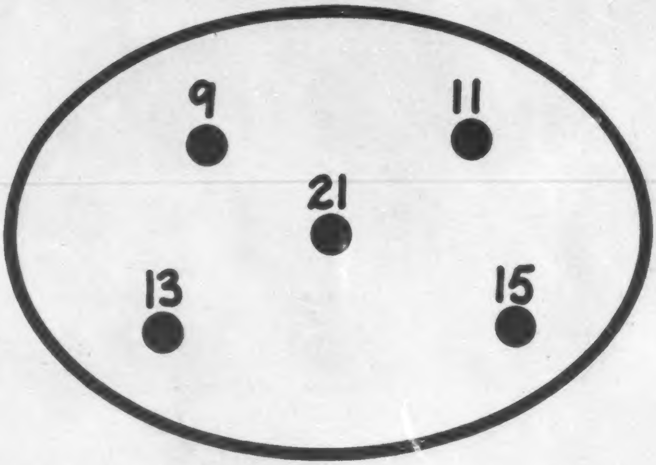

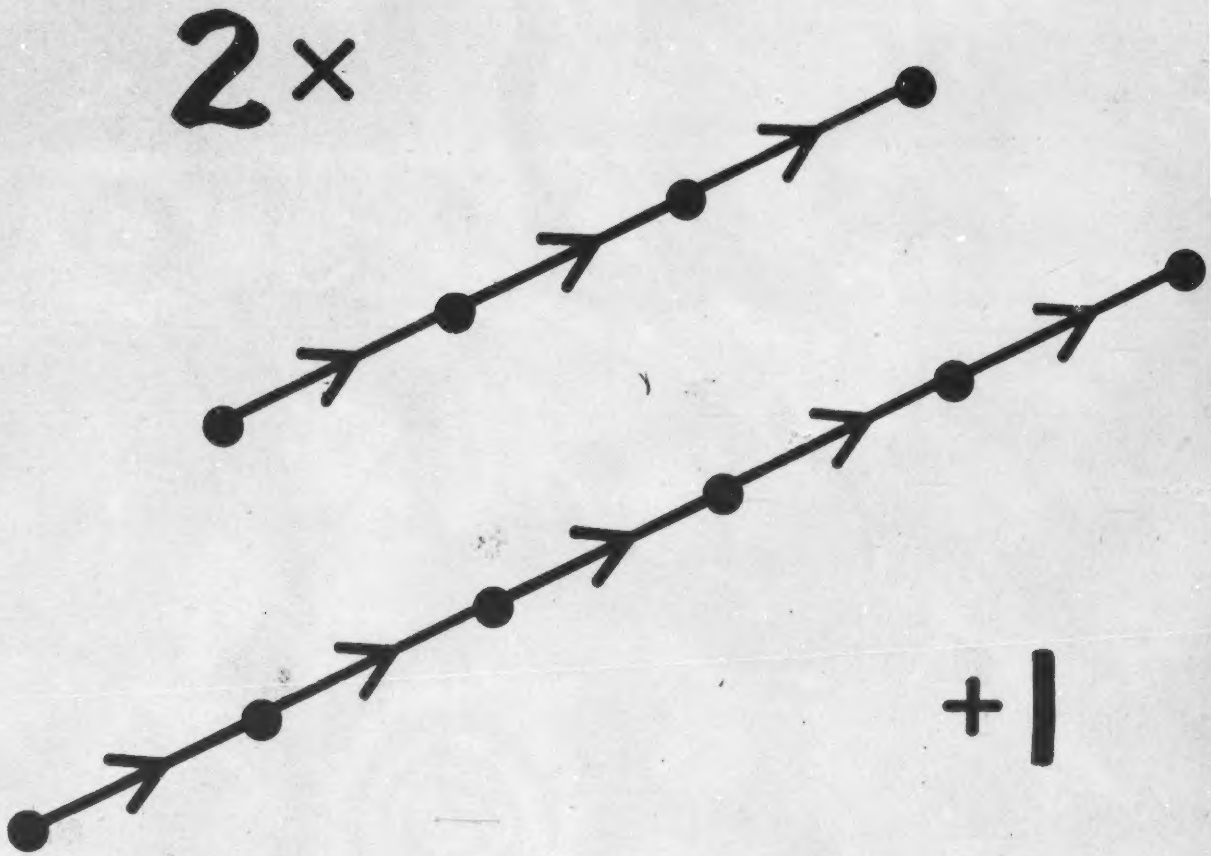
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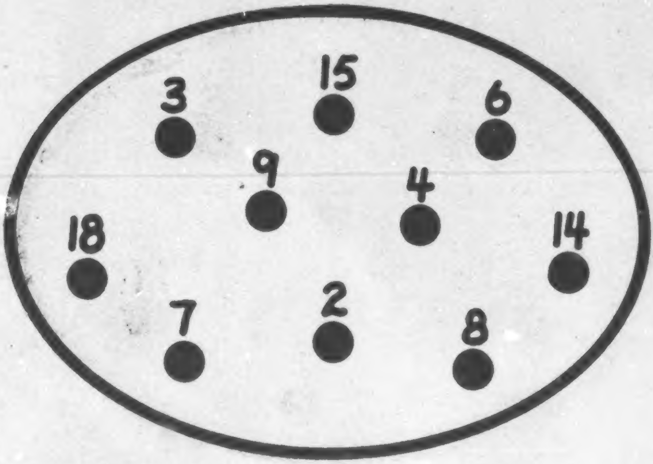

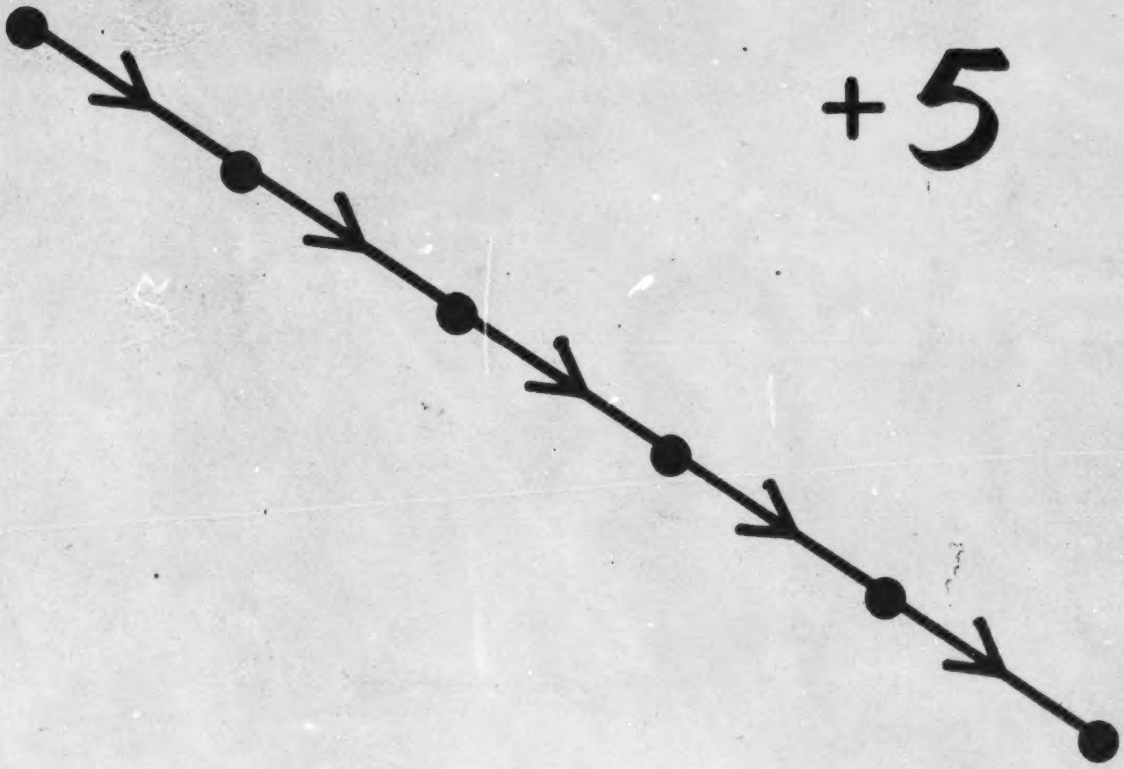
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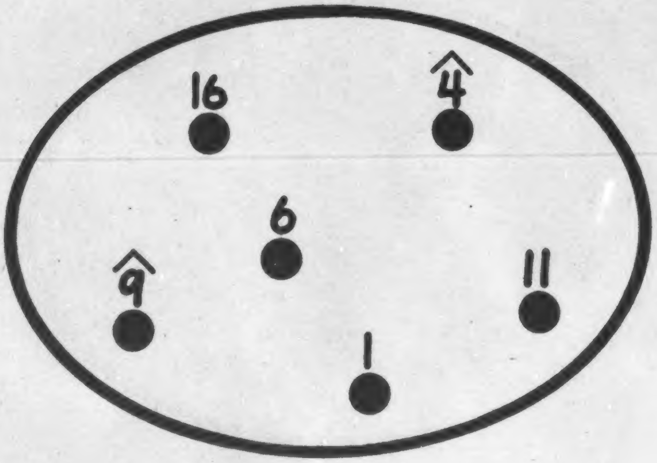
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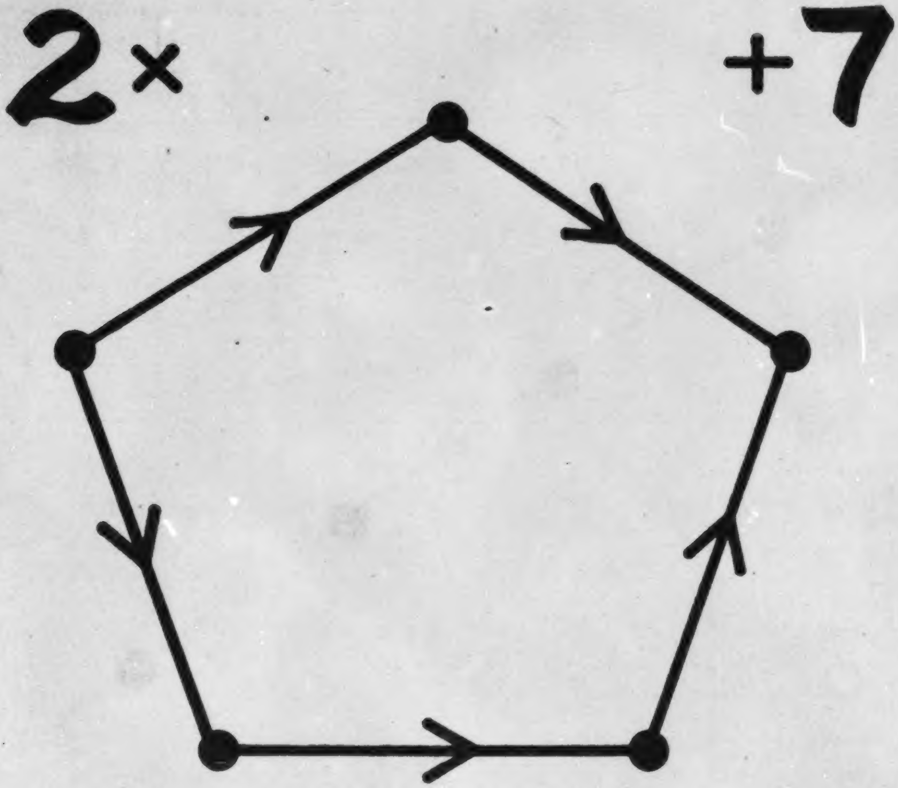
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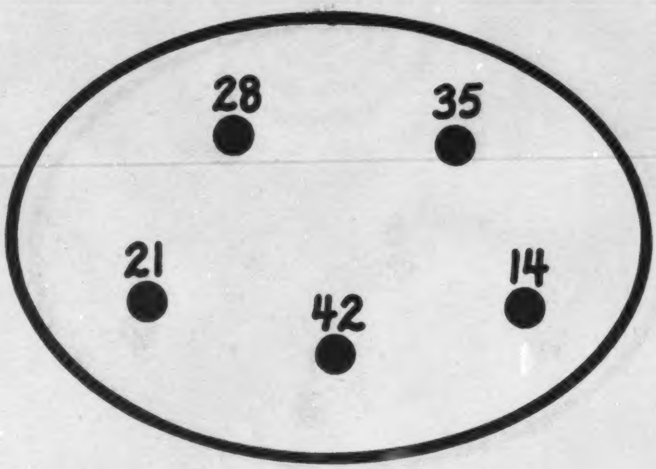

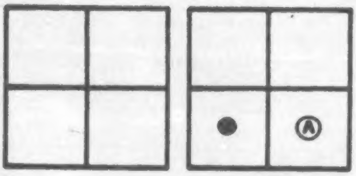

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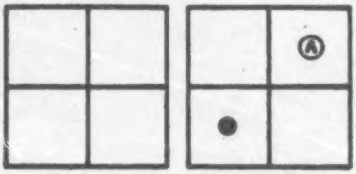

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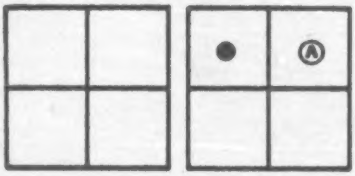

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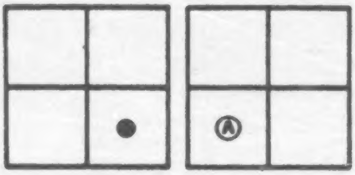

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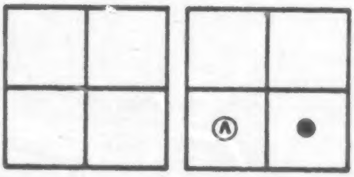

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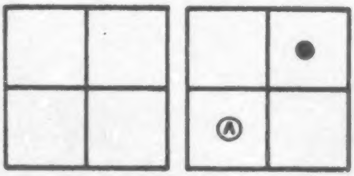

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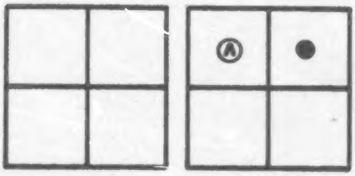

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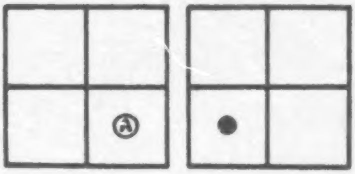

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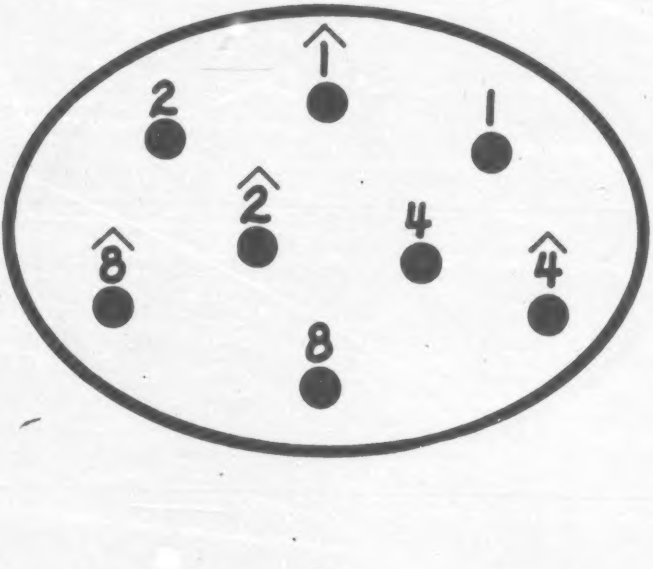
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$\hat{2}$
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$\hat{4}$
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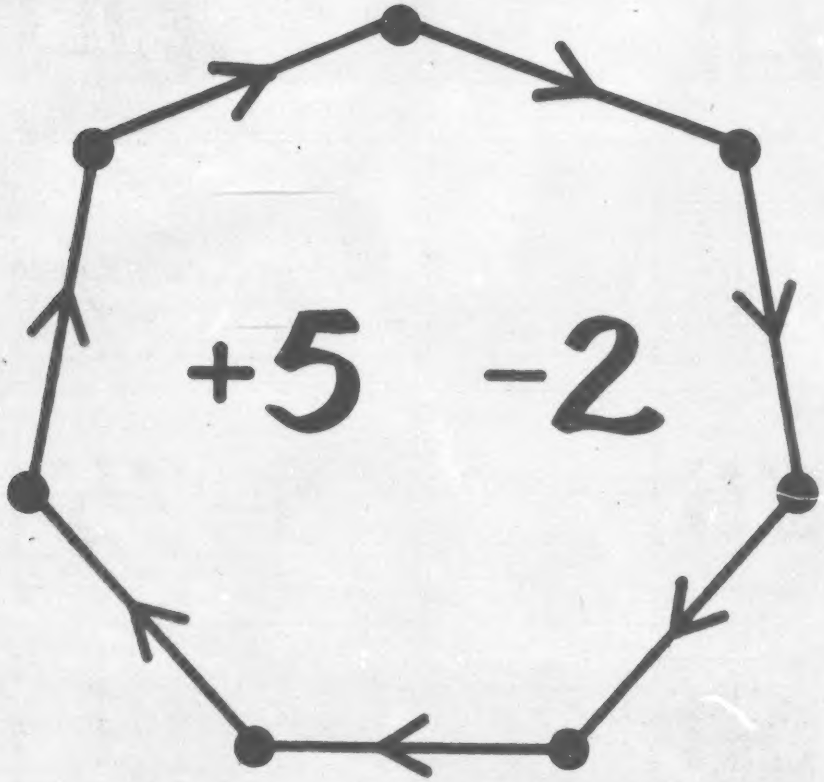
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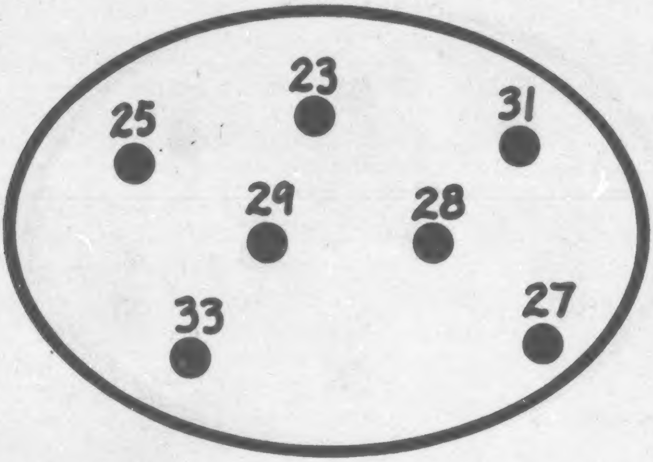

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3 × 30 = ___

5 × 20 = ___

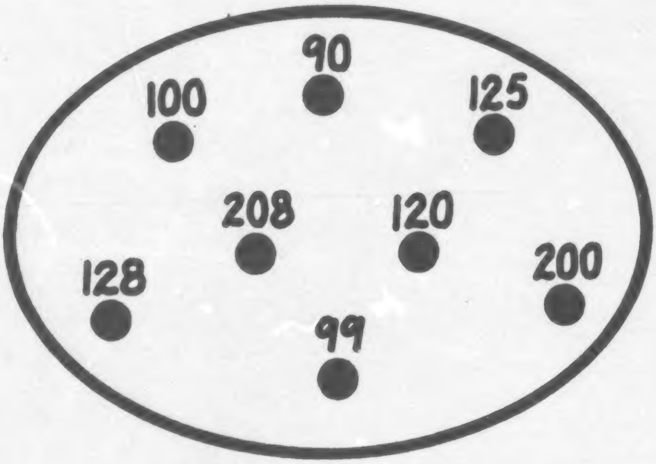
4 × 50 = ___

2 × 64 = ___

3 × 33 = ___

5 × 25 = ___

4 × 52 = ___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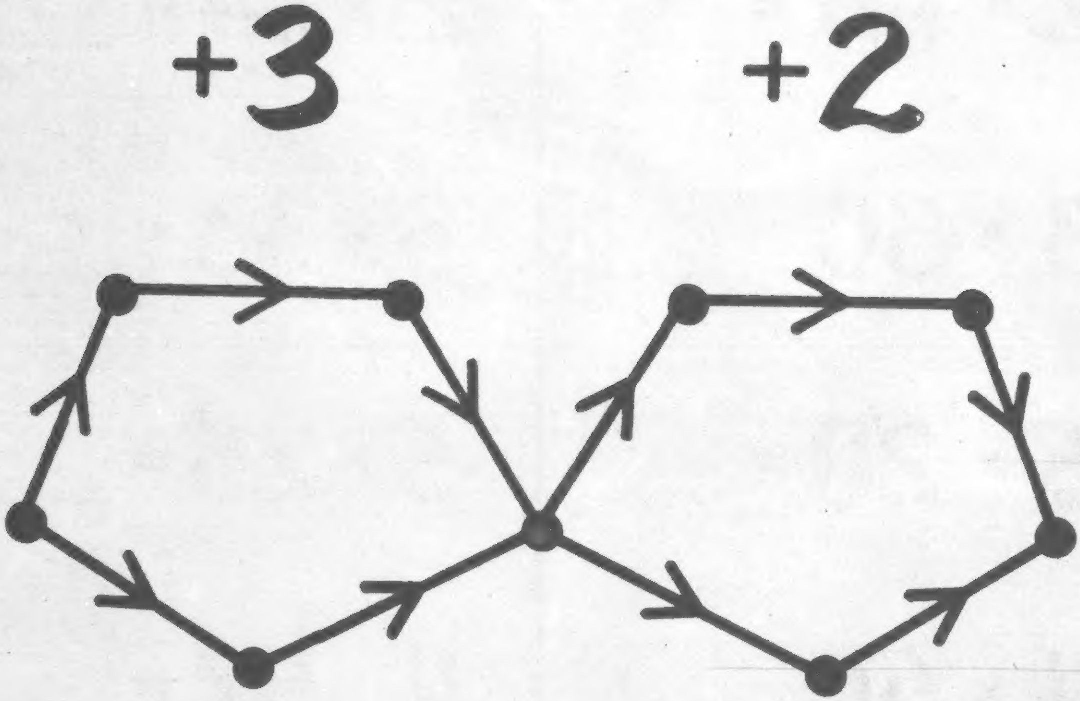
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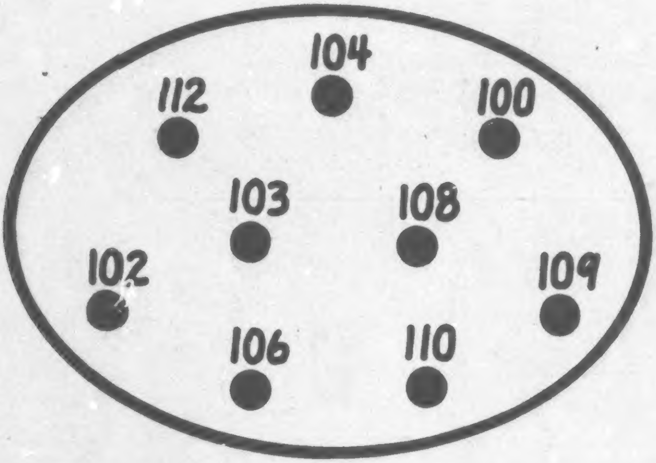
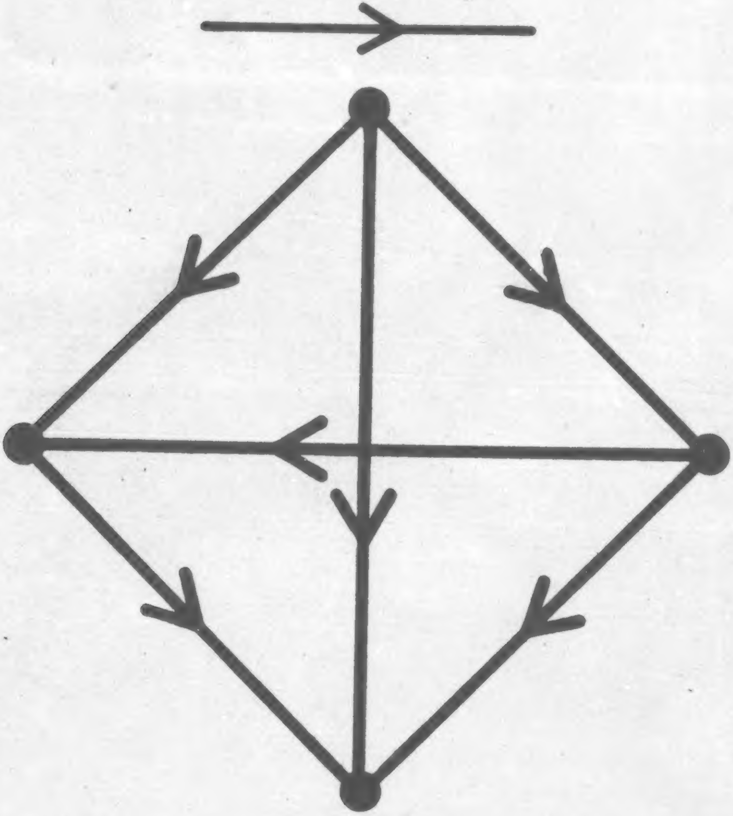
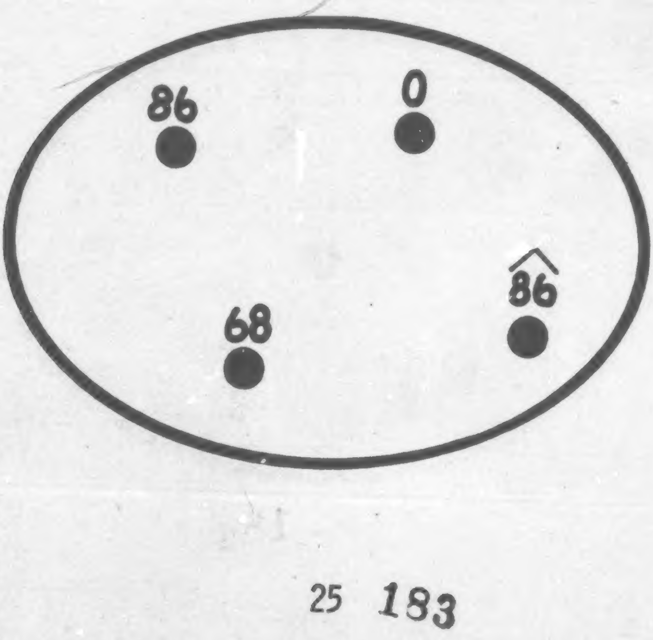


I am more than you

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68

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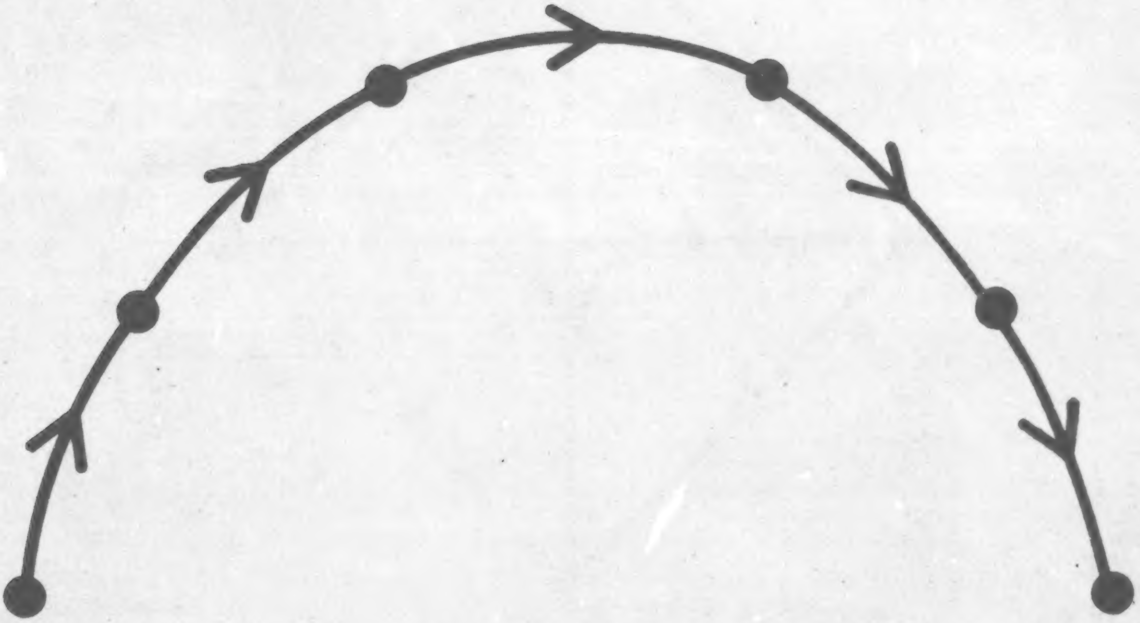

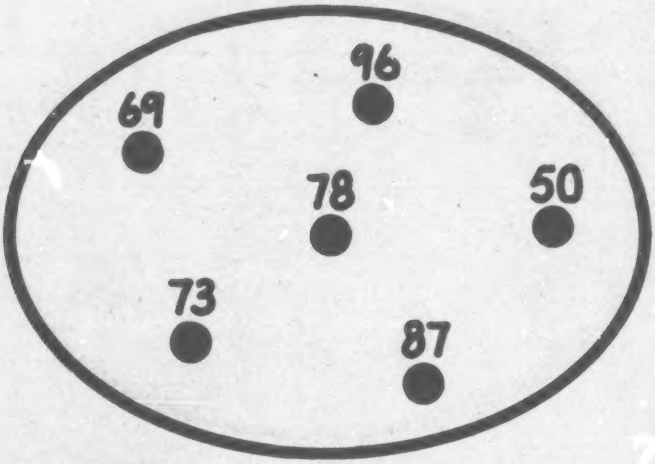
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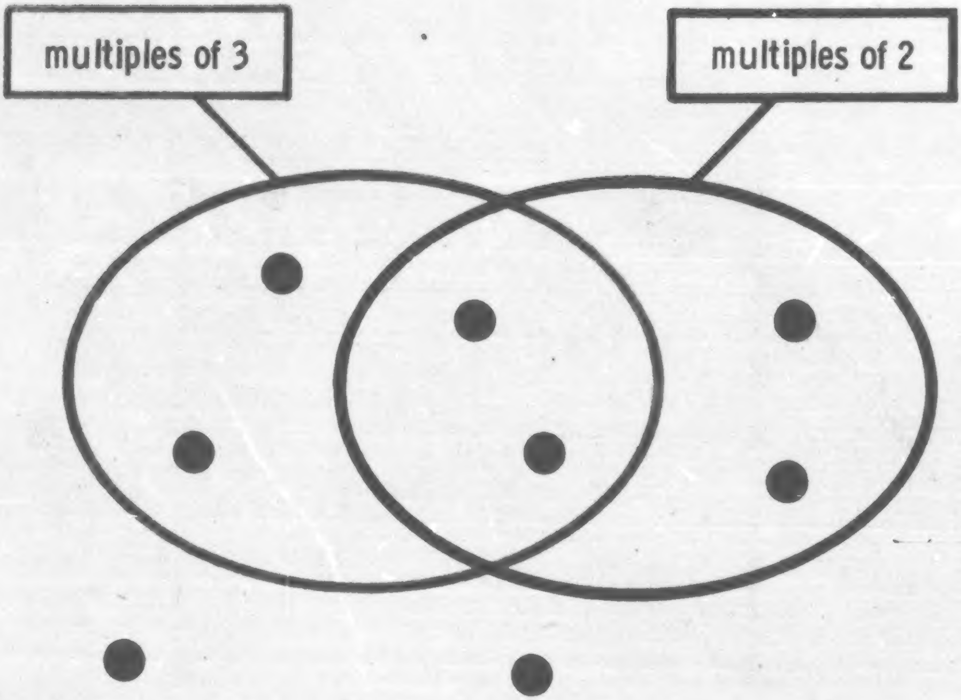
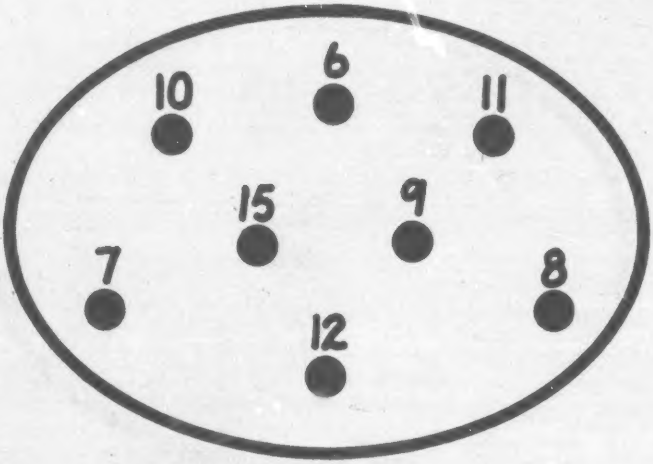

multiples of 3
multiples of 2



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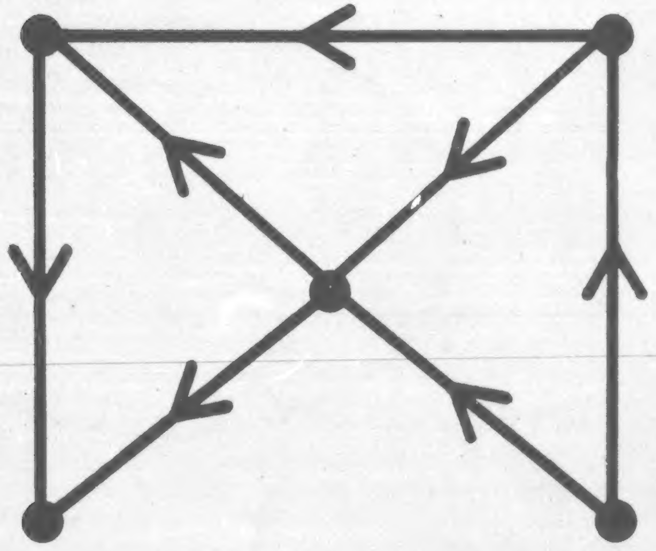

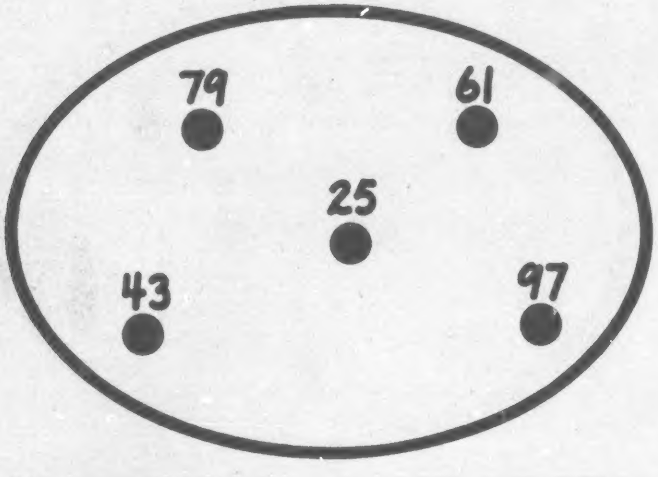
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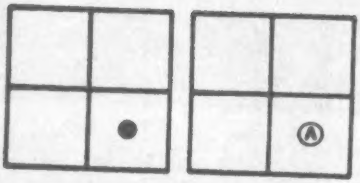

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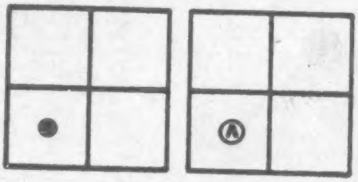

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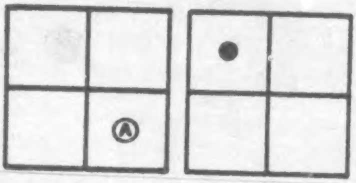

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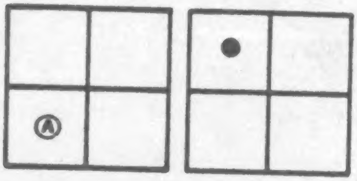

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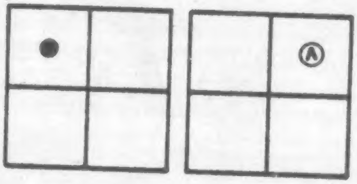

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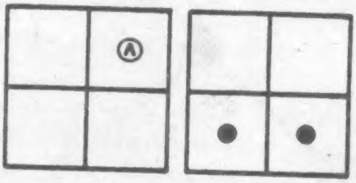

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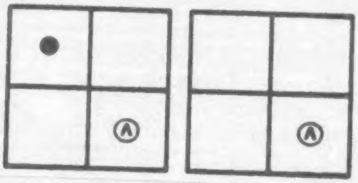

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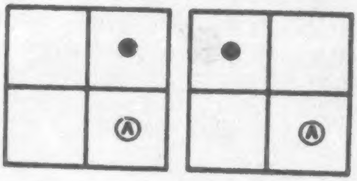

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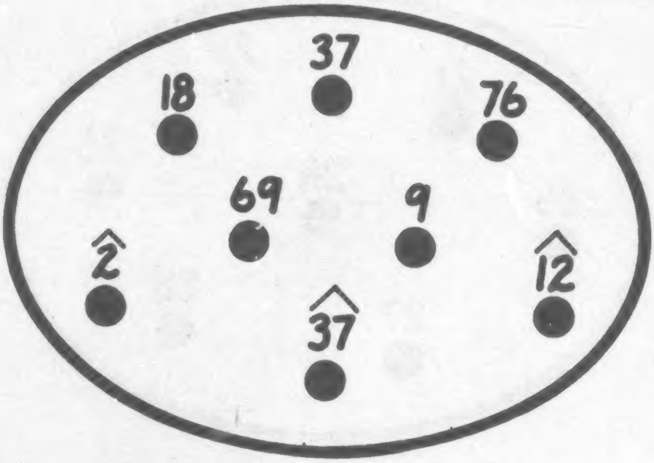
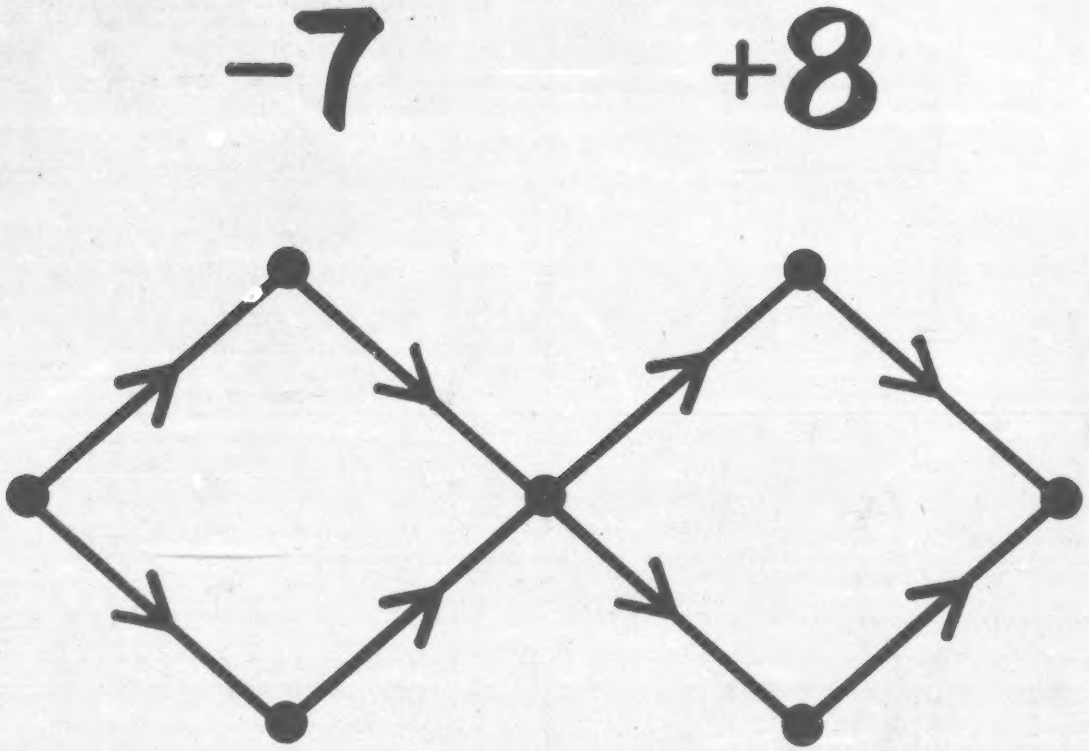
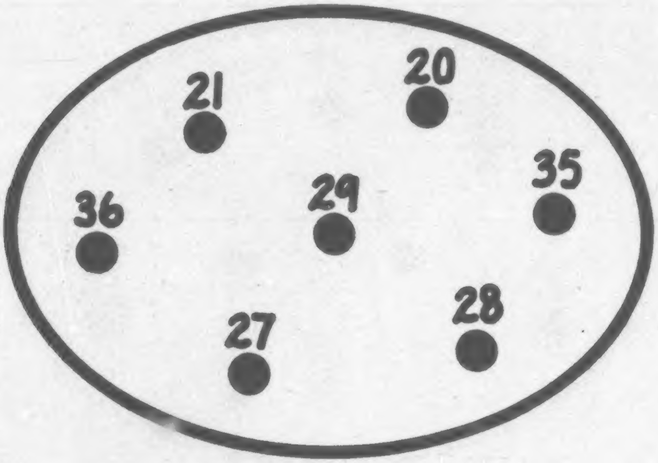
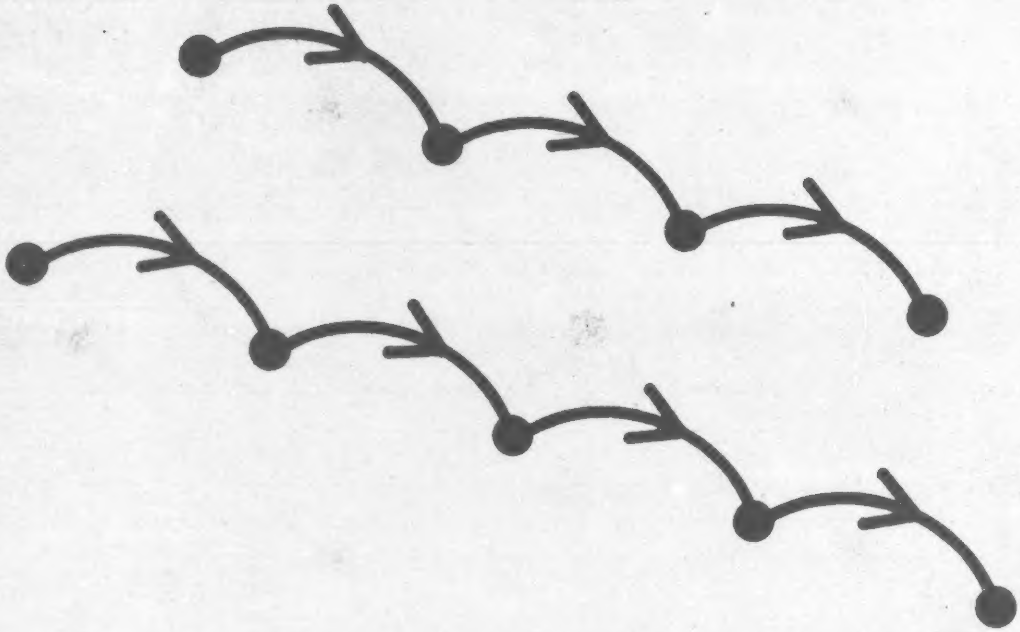
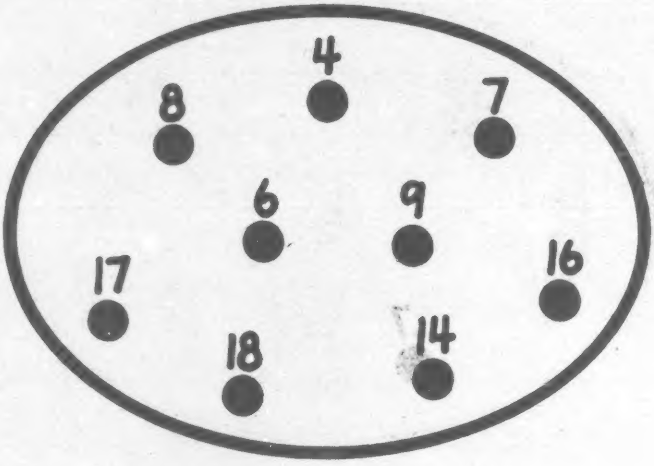

$\widehat{2}$
$\widehat{12}$
$\widehat{37}$

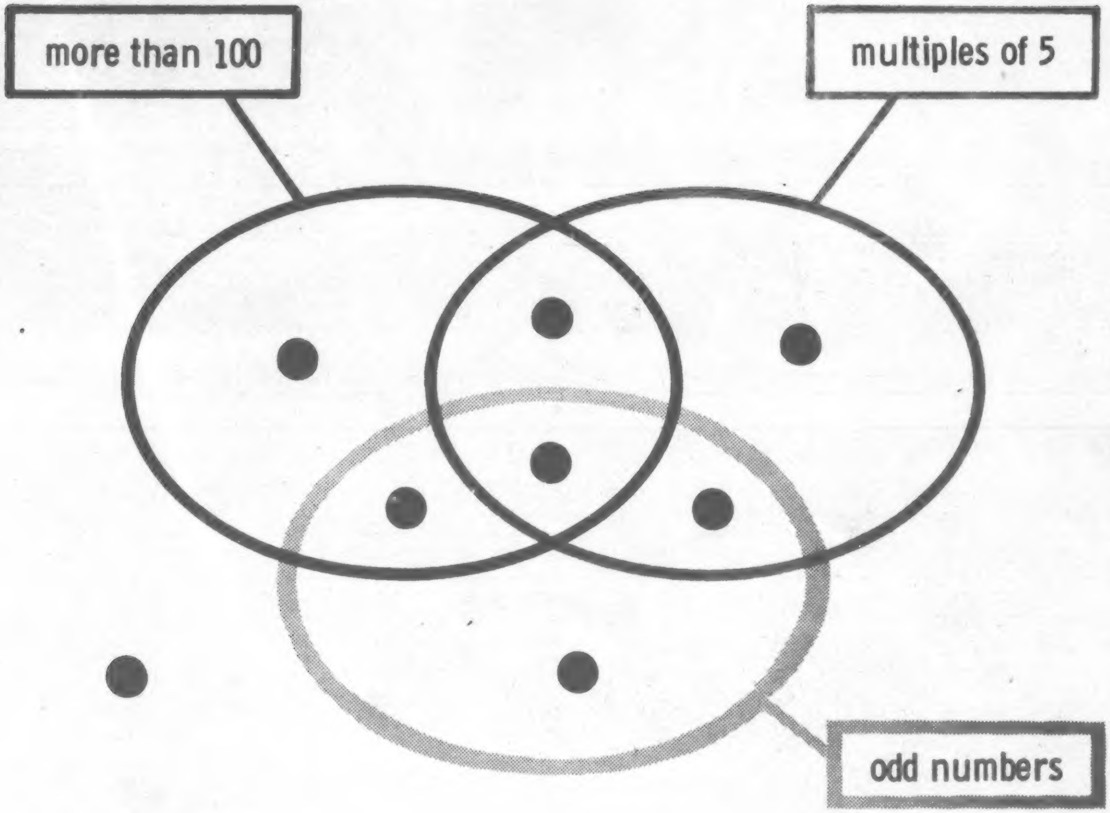

-7
+8

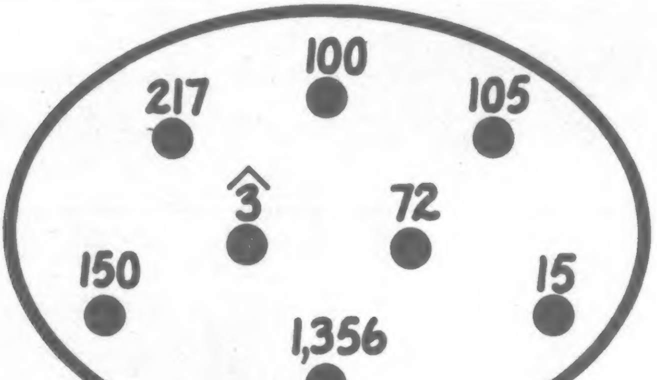


2×   −10




4
8
7
6
9
17
16
18
14


more than 100
multiples of 5
odd numbers


100
217
105
3
72
150
15
1,356

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Name ______________________

3-41801

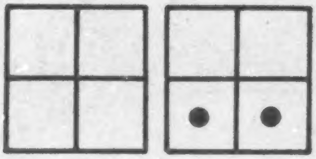
SE

FESTIVAL

PROBLEMS

MAY 1 6

What number is on the Minicomputer?



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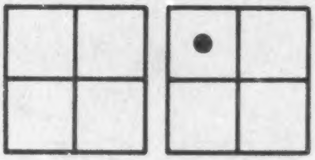

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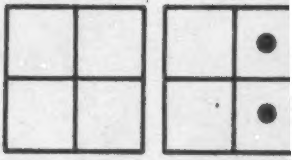

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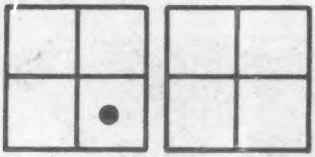

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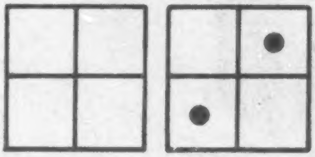

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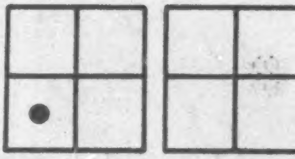

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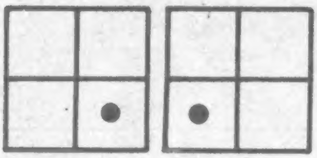

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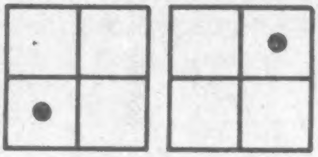

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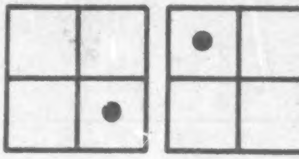
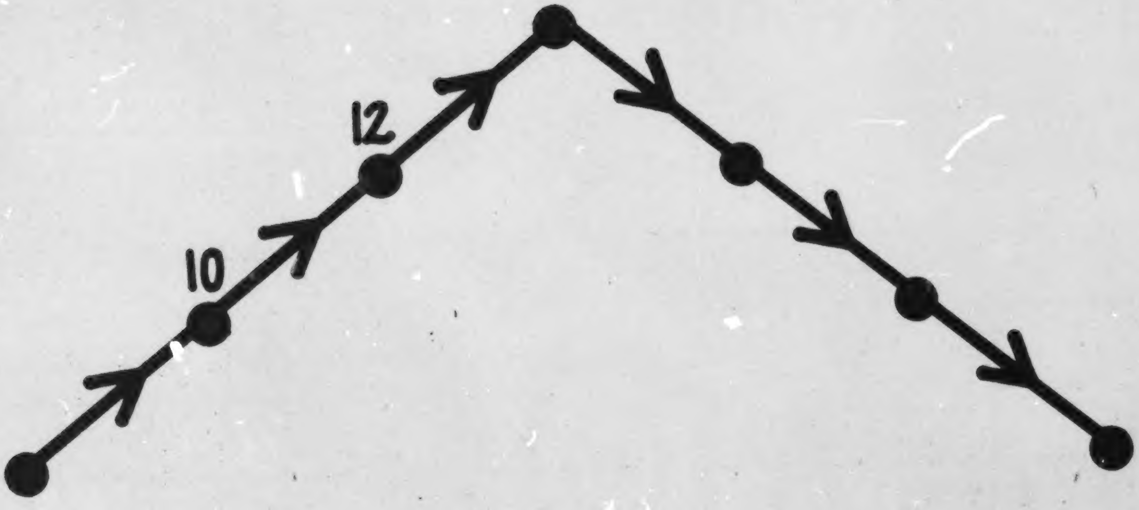
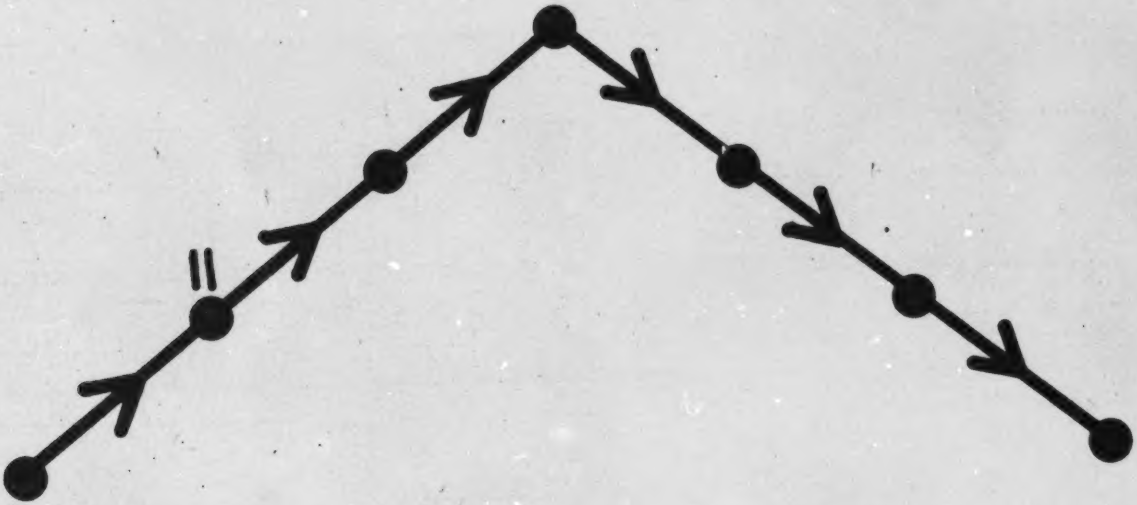


____

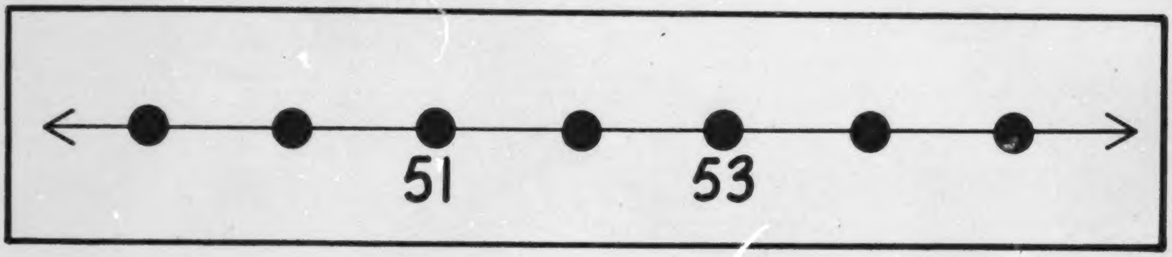
abel the dots.

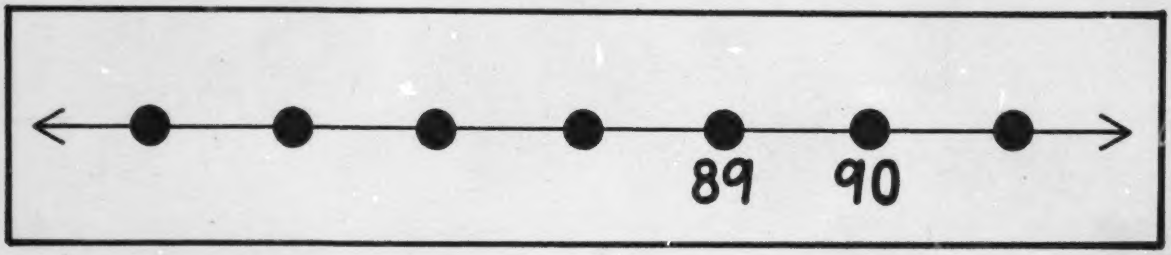
+2

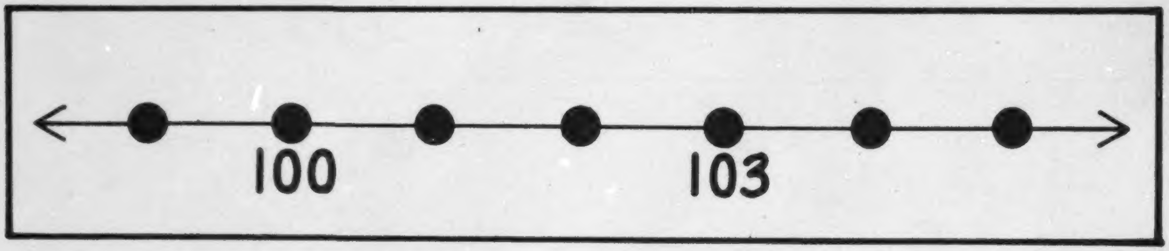


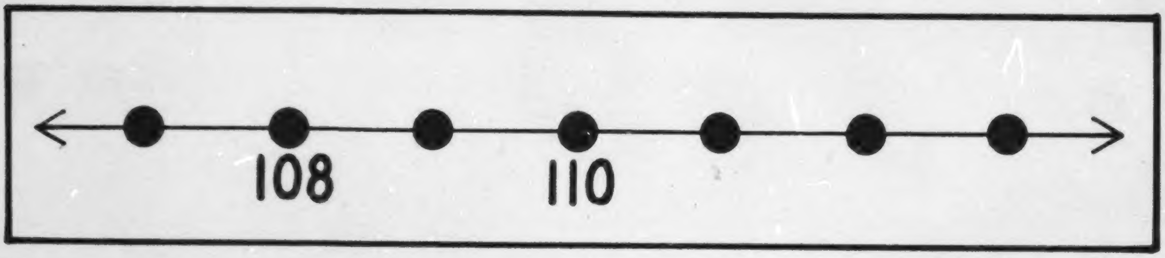


Label the dots on these number lines.

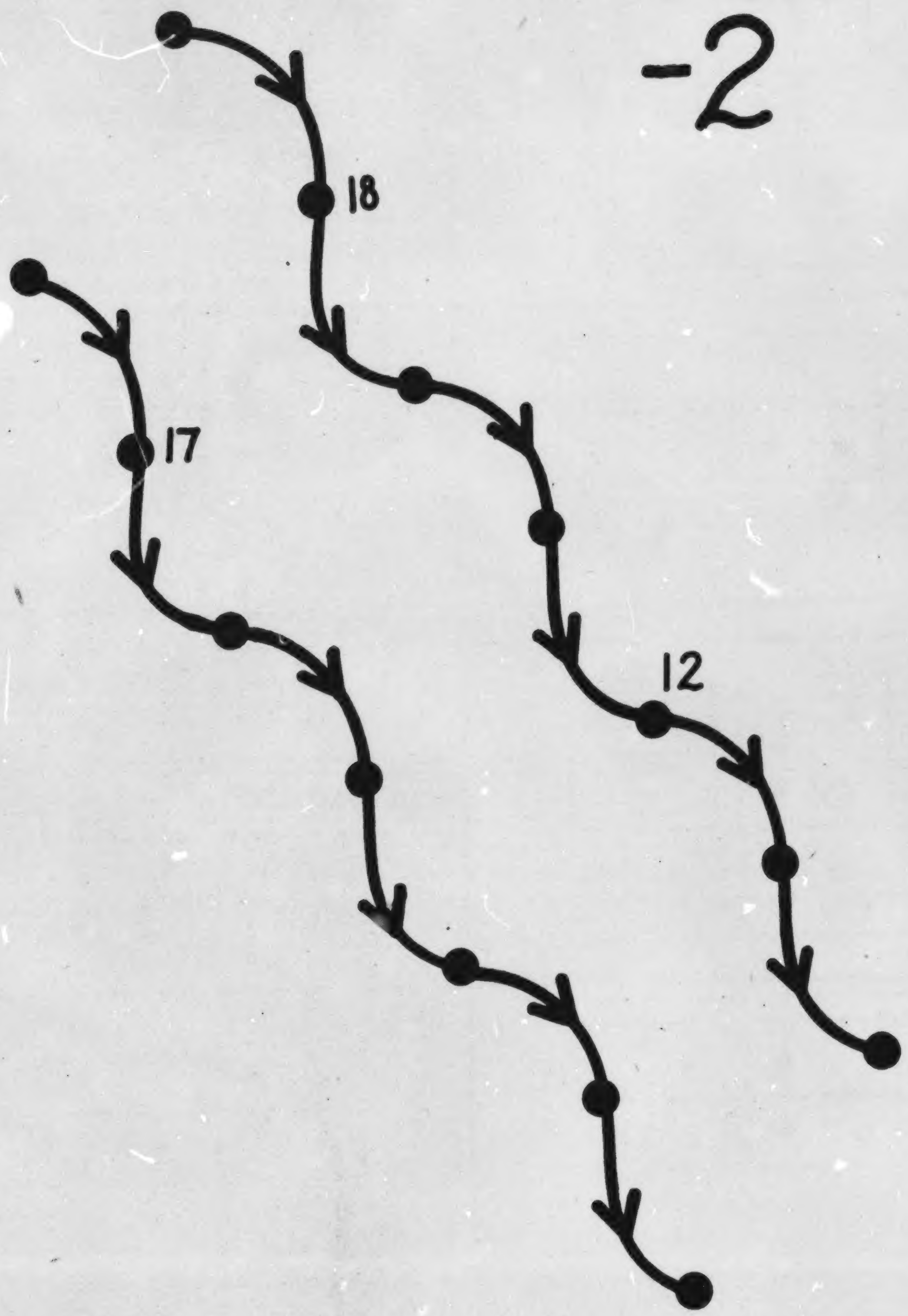




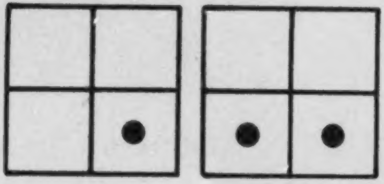


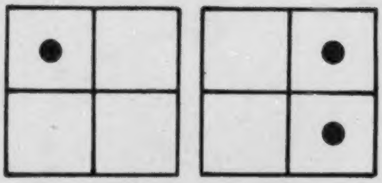


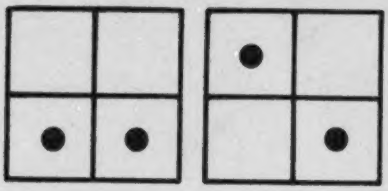
Label the dots.

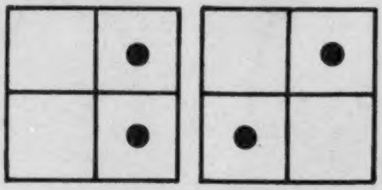


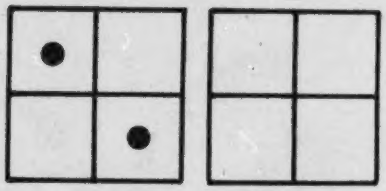
What number is on the Minicomputer ?

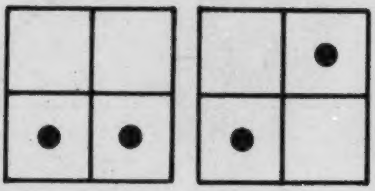


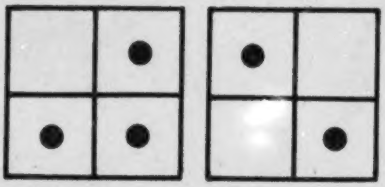


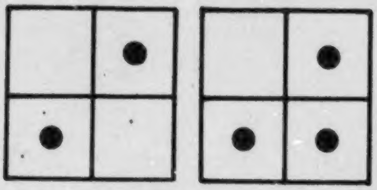




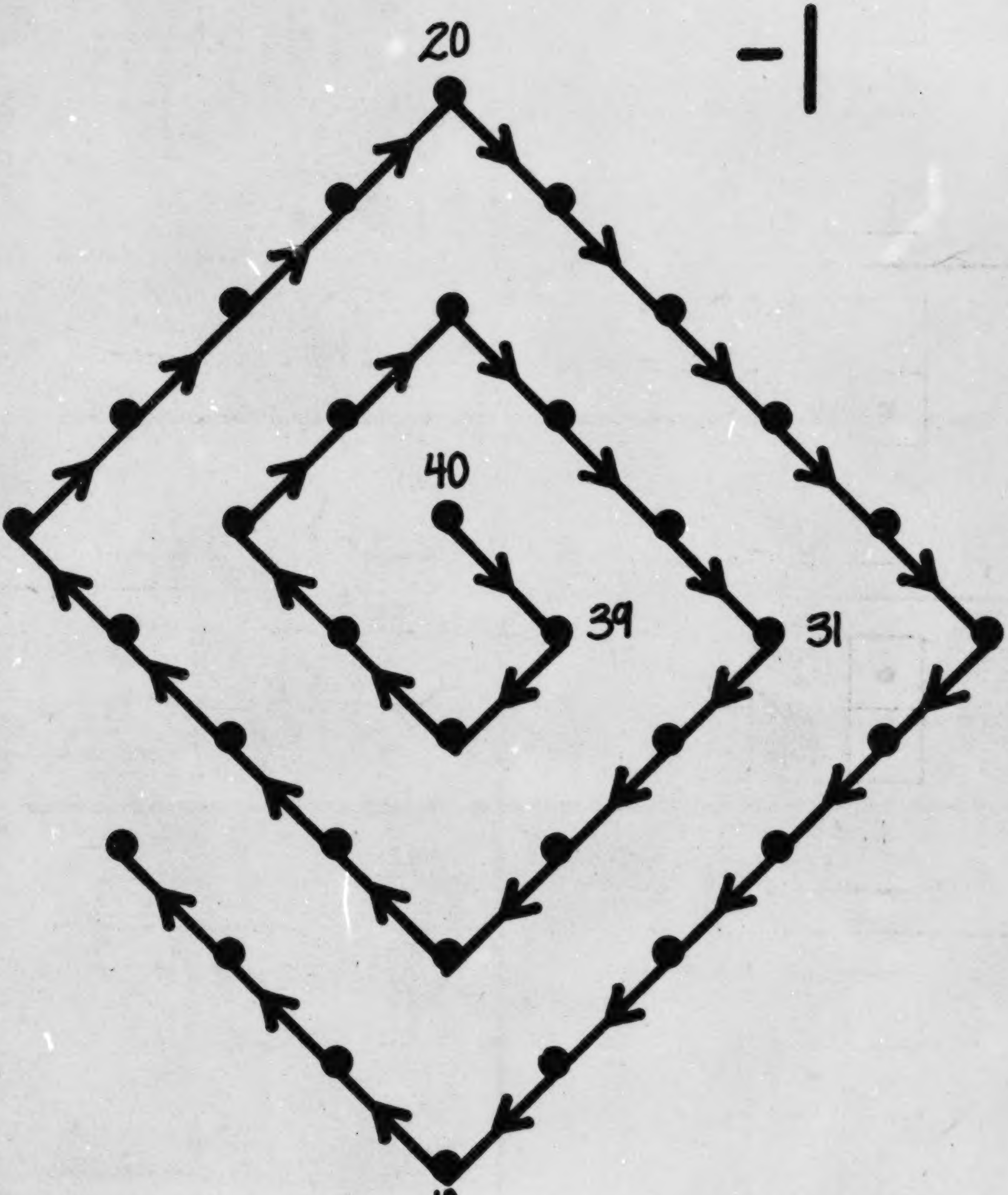








Label the dots.


-1
20
40
39
31
10

How much money?

5¢
5¢ 5¢

____¢

10¢
5¢
1¢

____¢

10¢
10¢

____¢

25¢
5¢

____¢

5¢ 5¢
5¢
5¢ 5¢

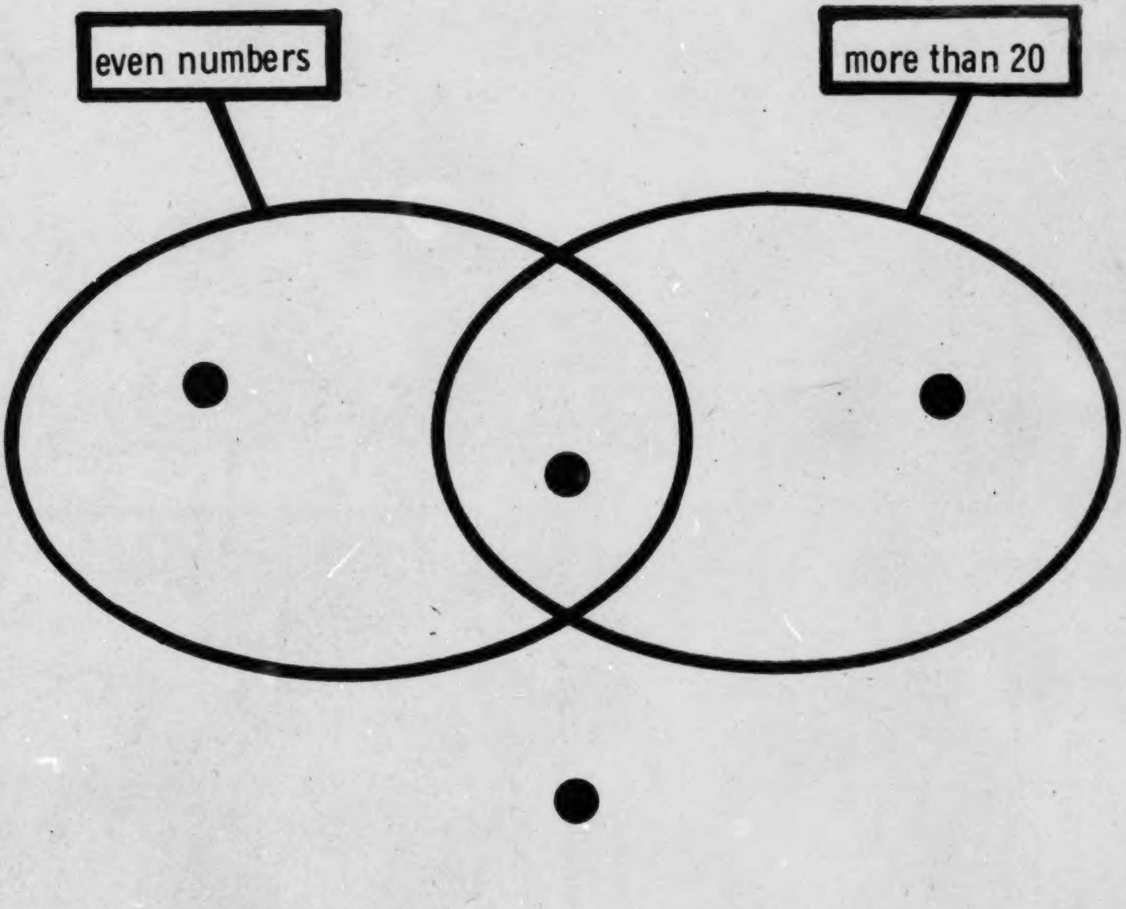
____¢

10¢
10¢ 5¢
10¢

____¢

Label the dots in this picture with these numbers:

12 15 23 30


even numbers
more than 20

Build a red-blue road from 0 to 62.

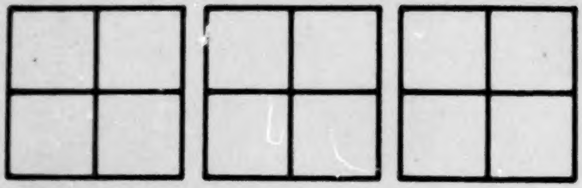
● 62

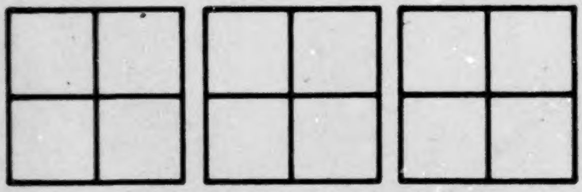
+10

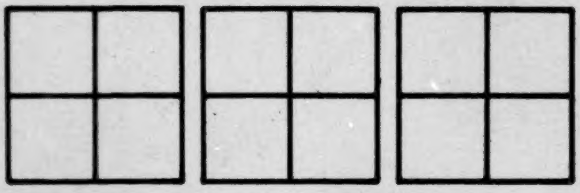
+1

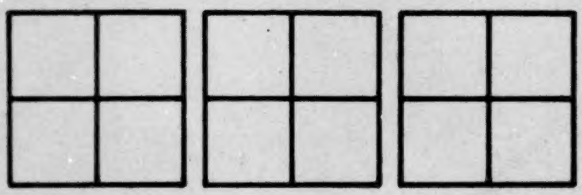
●
0

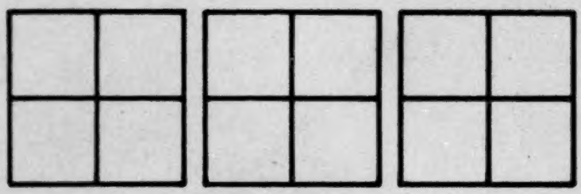
Put these numbers on the Minicomputer.

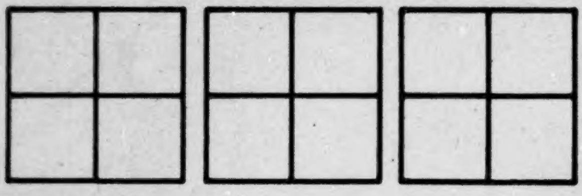
35 =


87 =


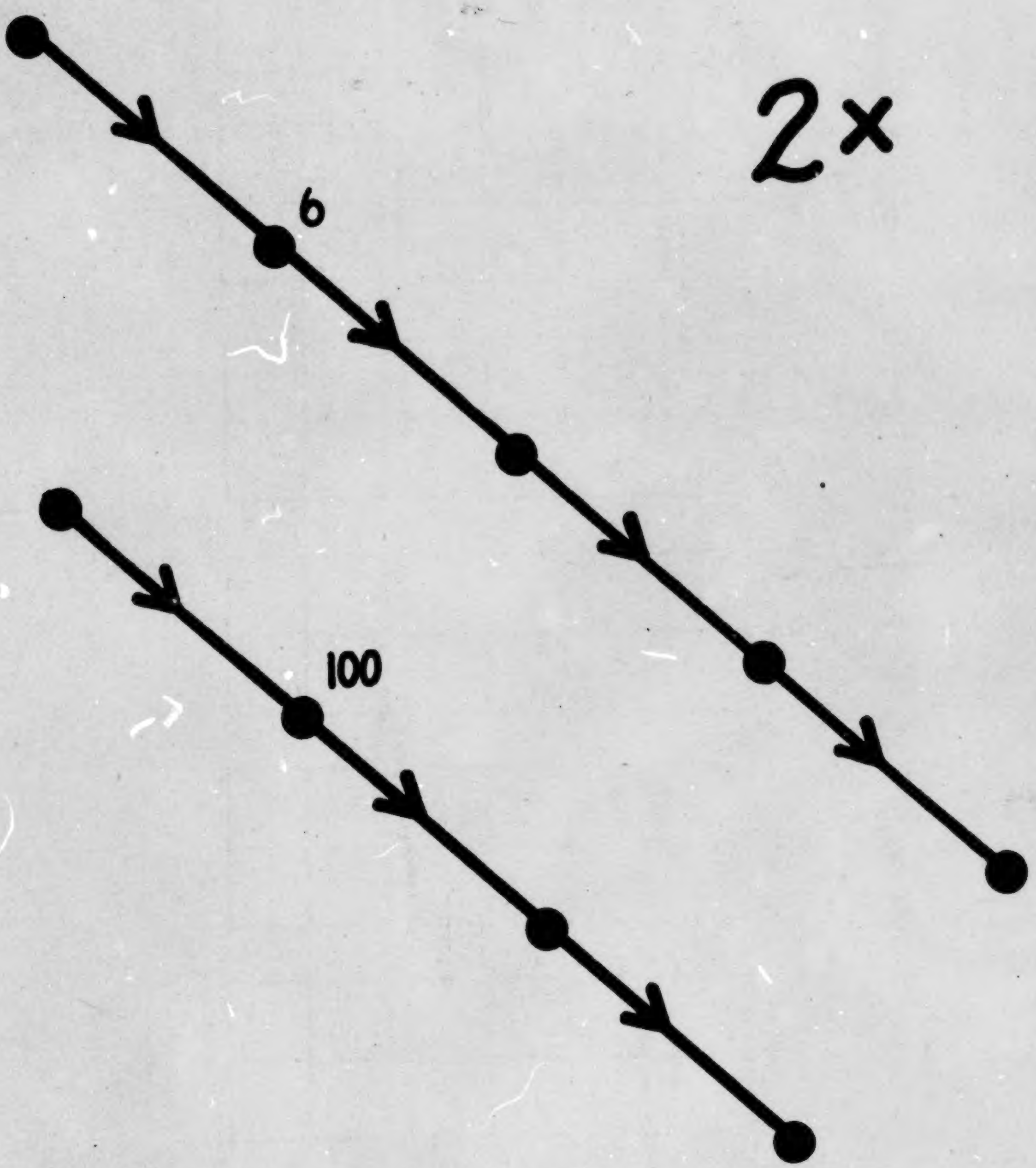
90 =


56 =


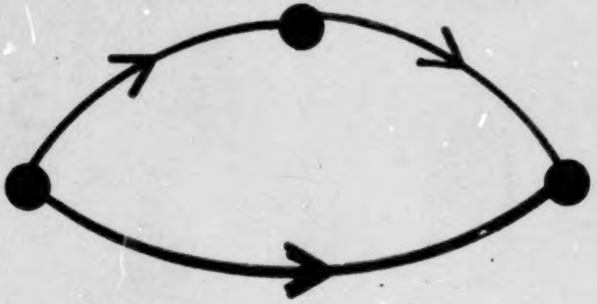
79 =


163 =


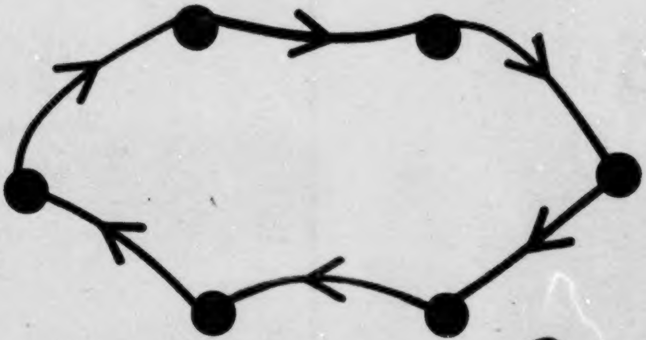
Label the dots.

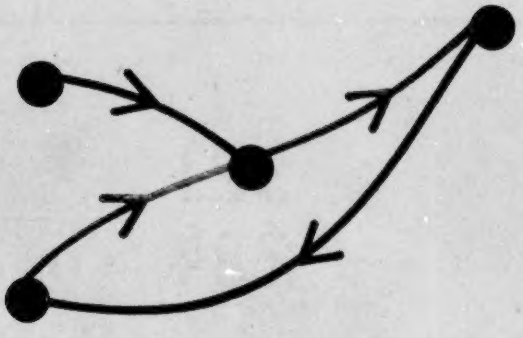


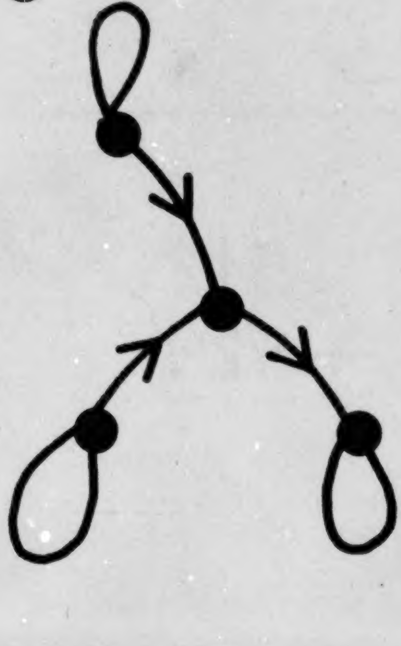
Red followed by blue is purple.



Draw the missing purple arrows.







Complete the addition calculations.

25
+ 15

52
+ 64

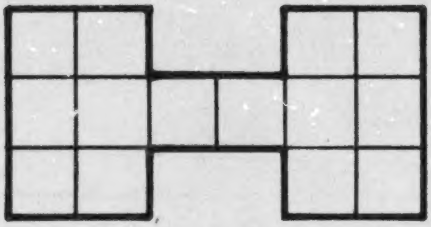
350
+ 240

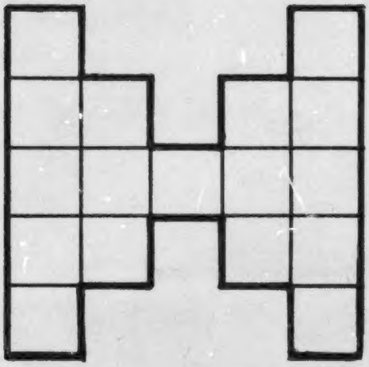
416
+ 322

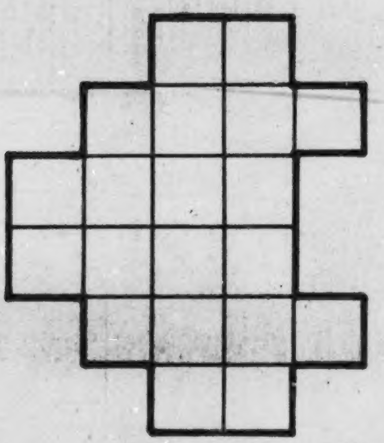
512
+ 329

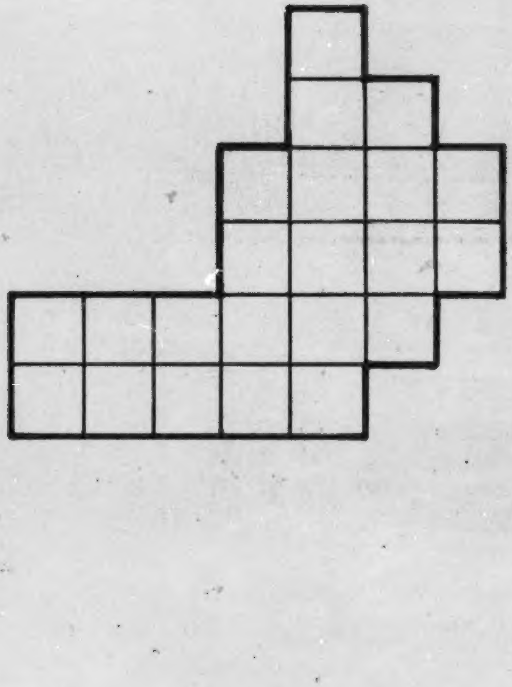
321
+ 284

Color each shape one-half red and one-half blue.

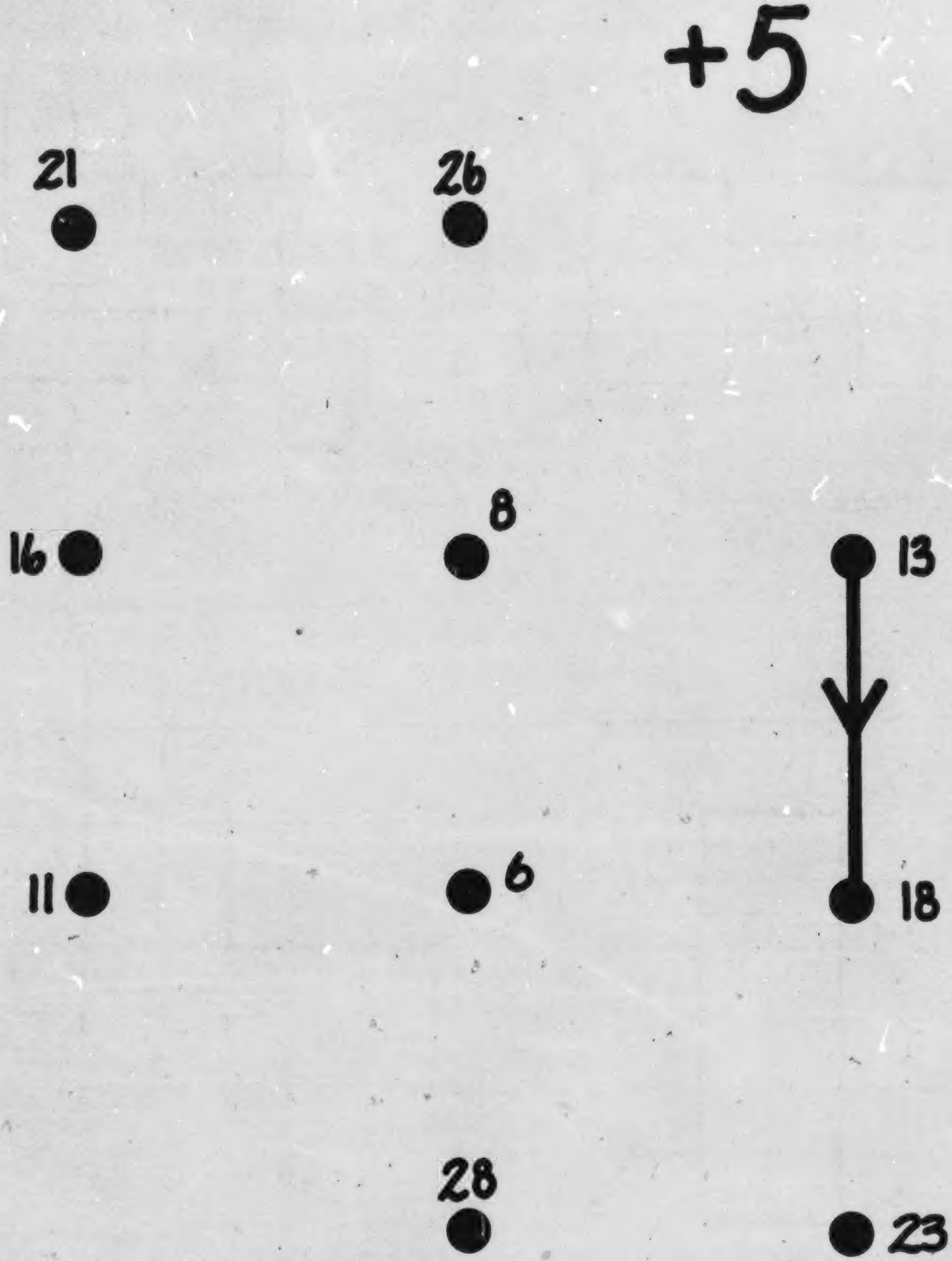




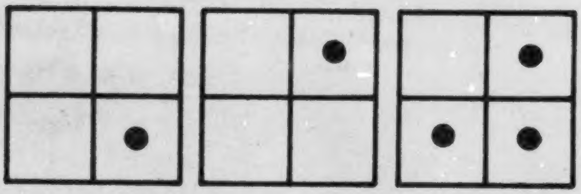


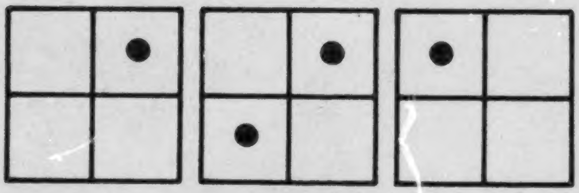


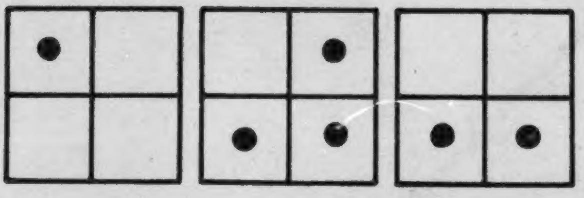
Draw all the +5 arrows. One is done for you.

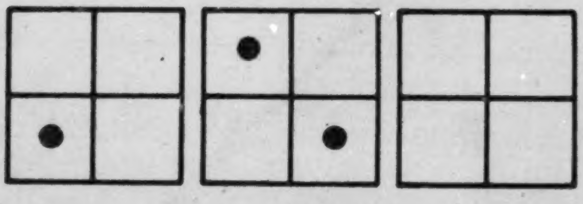

+5
21
26
16
8
13
11
6
18
28
23

What number is on the Minicomputer ?


= ______


= ______


= ______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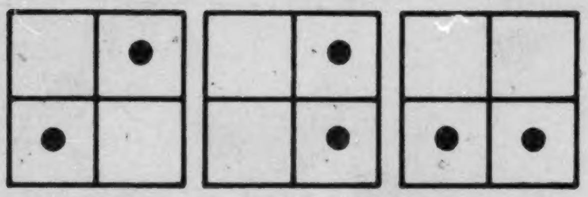
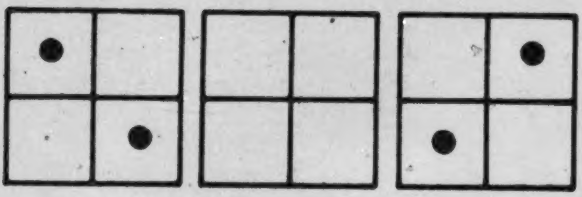
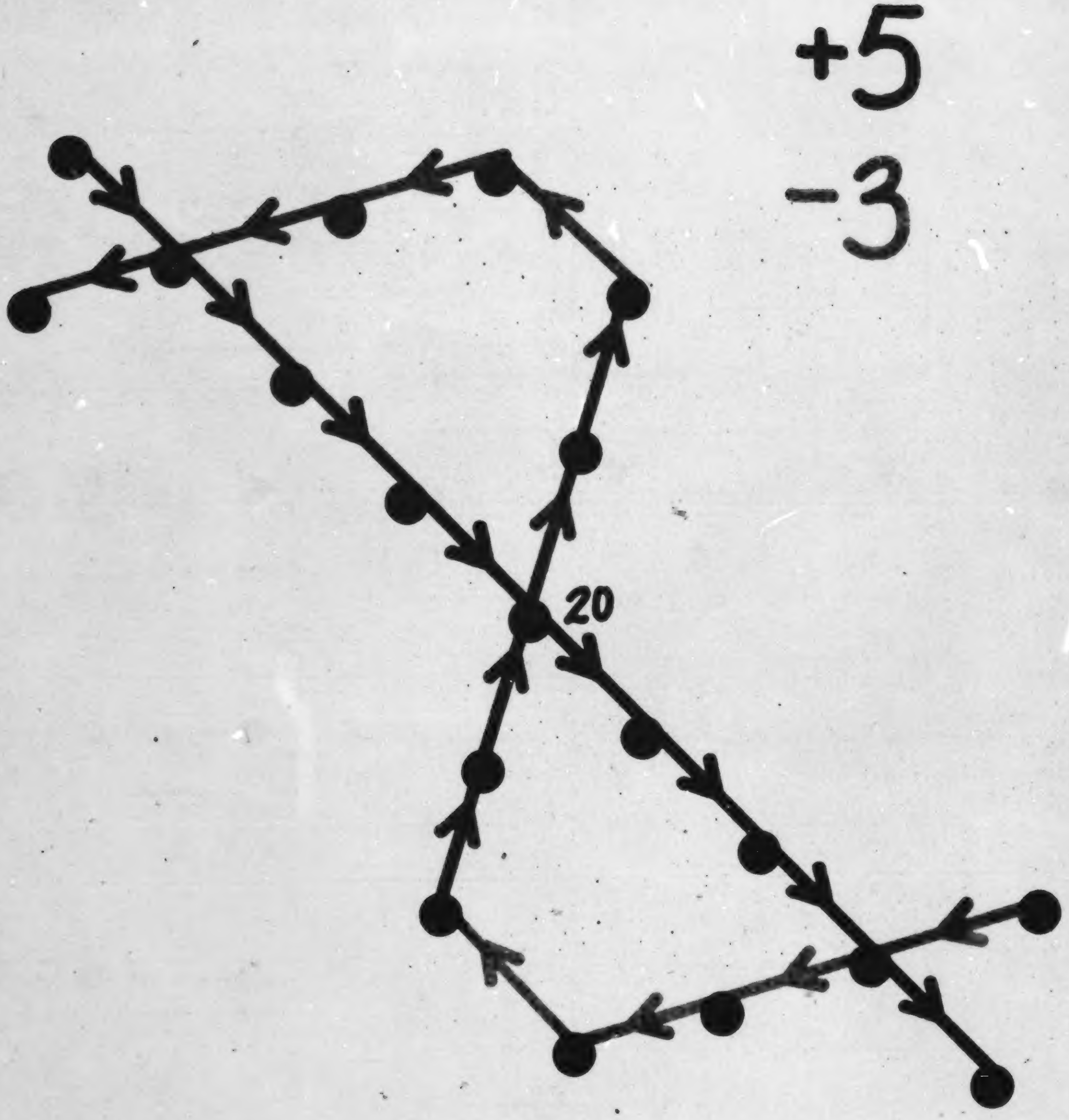
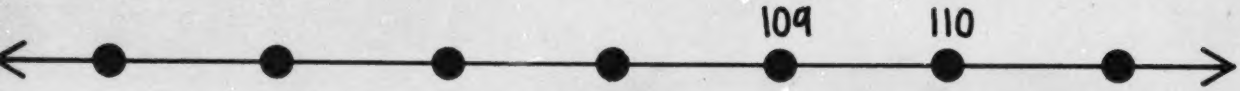

= ______

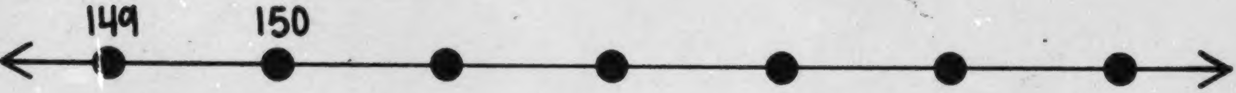

= ______

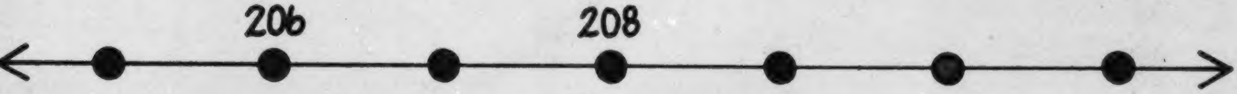
Label the dots.

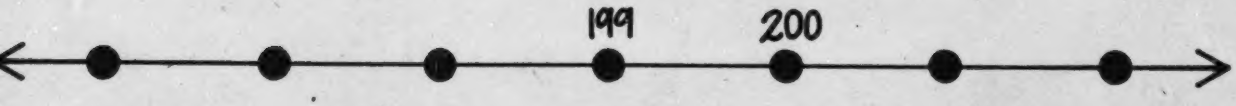


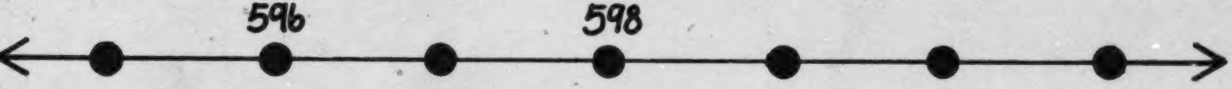
abel the dots on these number lines.

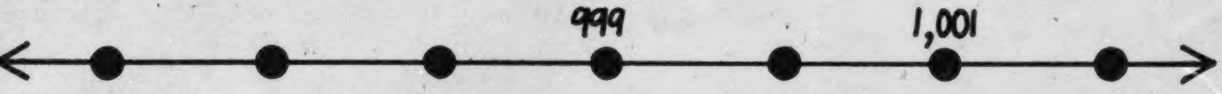




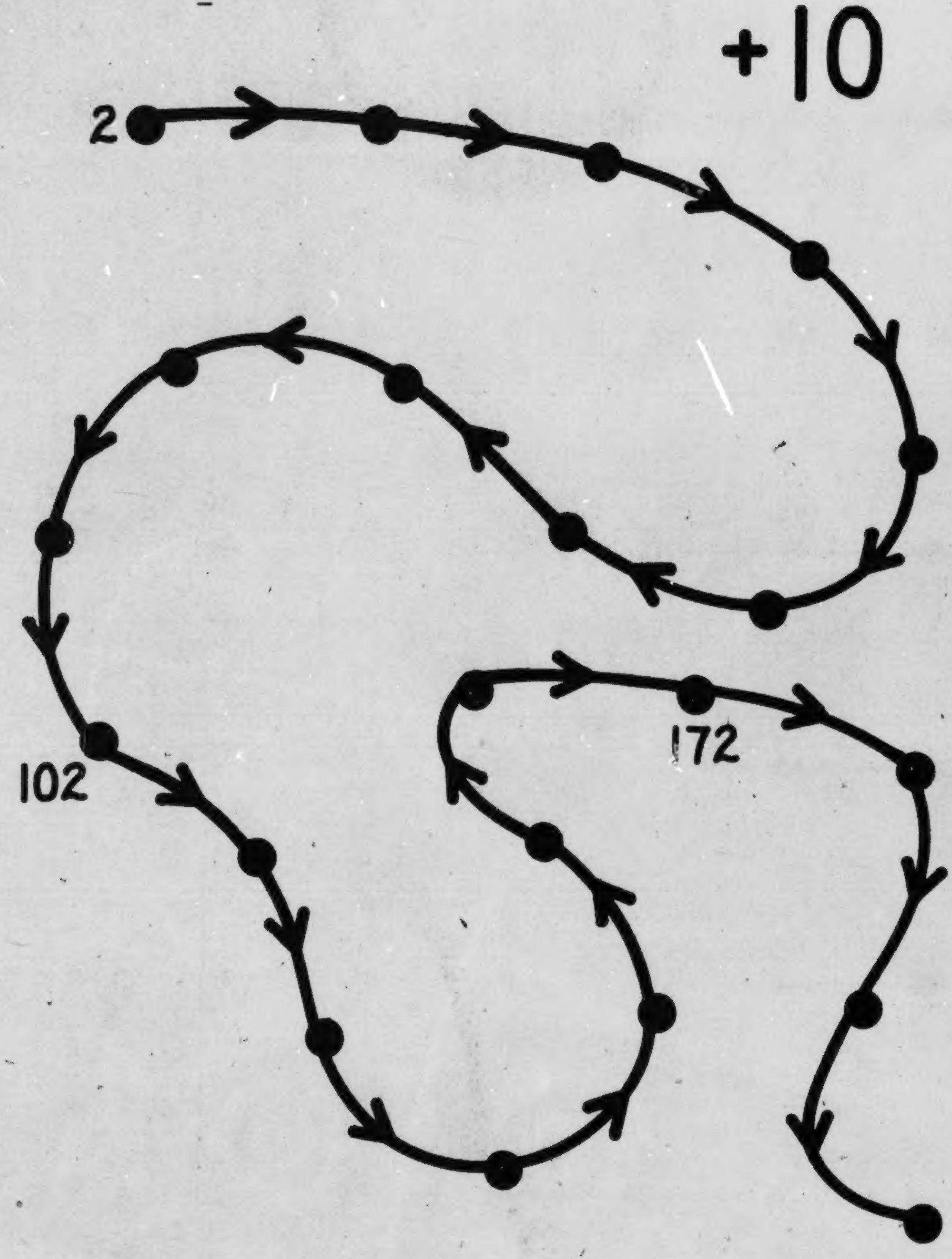




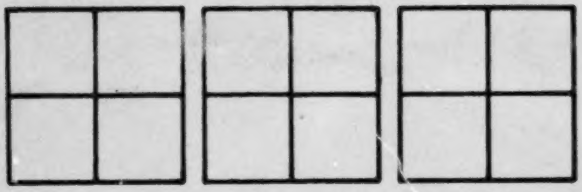


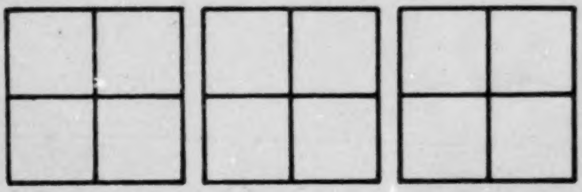


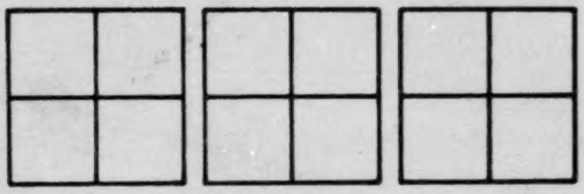
Label the dots.

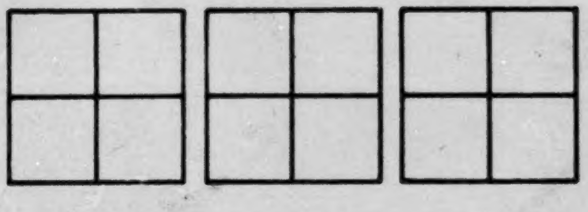


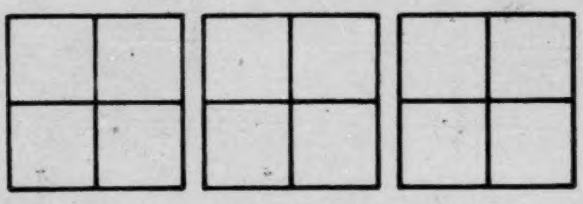
Put these numbers on the Minicomputer.

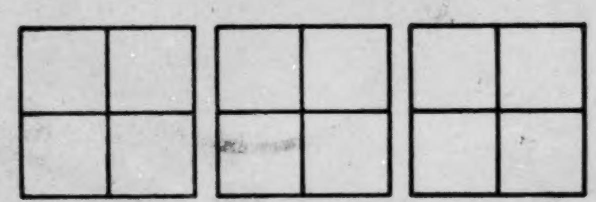
425 = 

239 = 

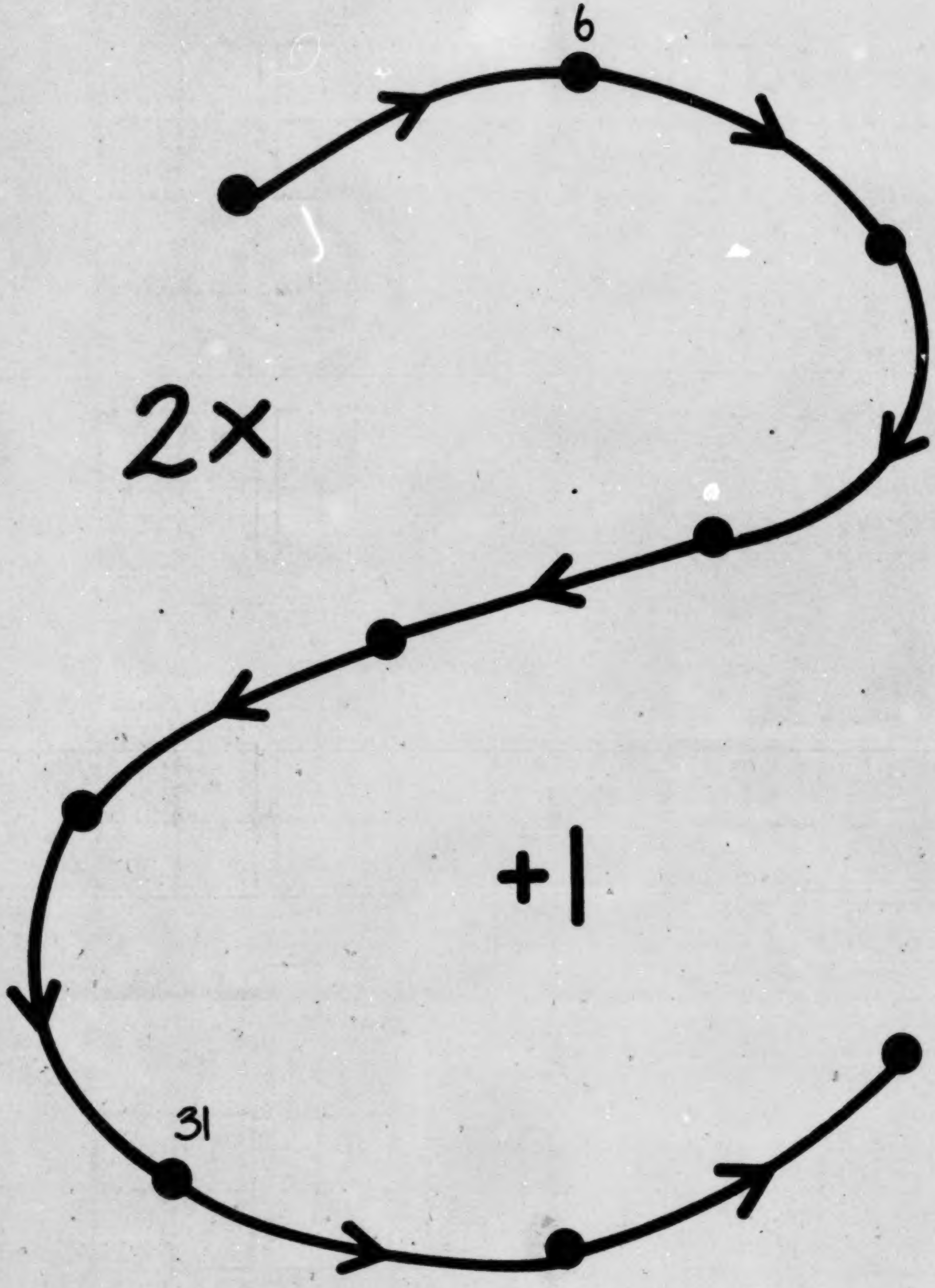
306 = 

570 = 

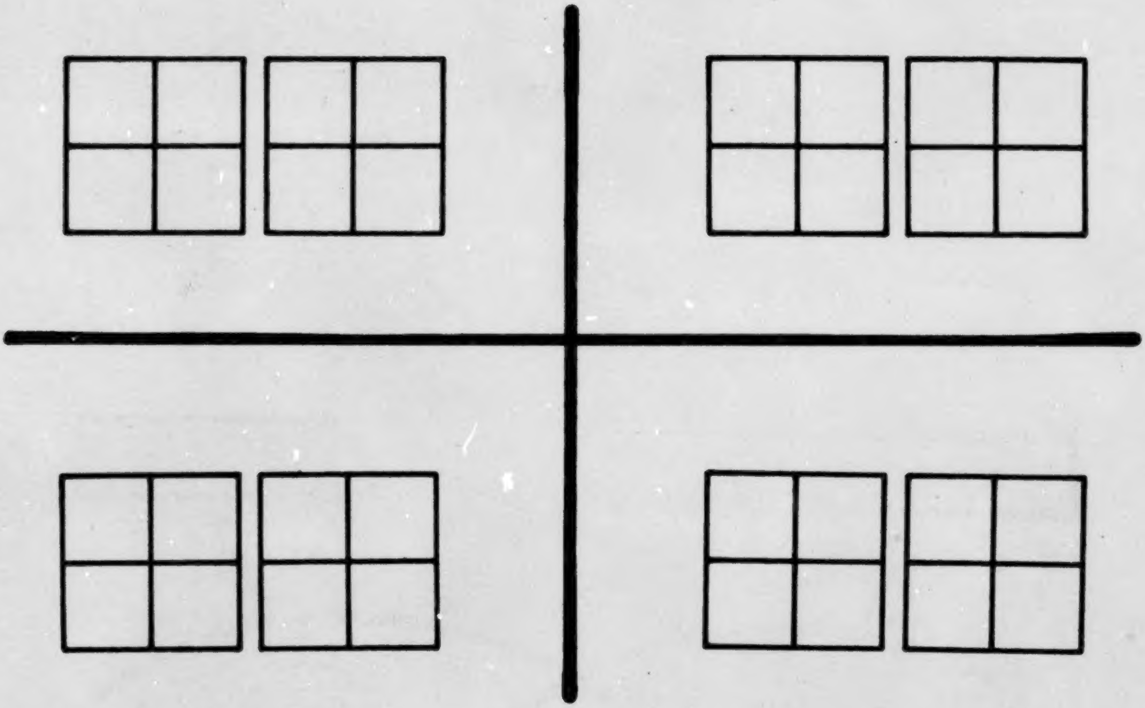
957 = 

63 = 

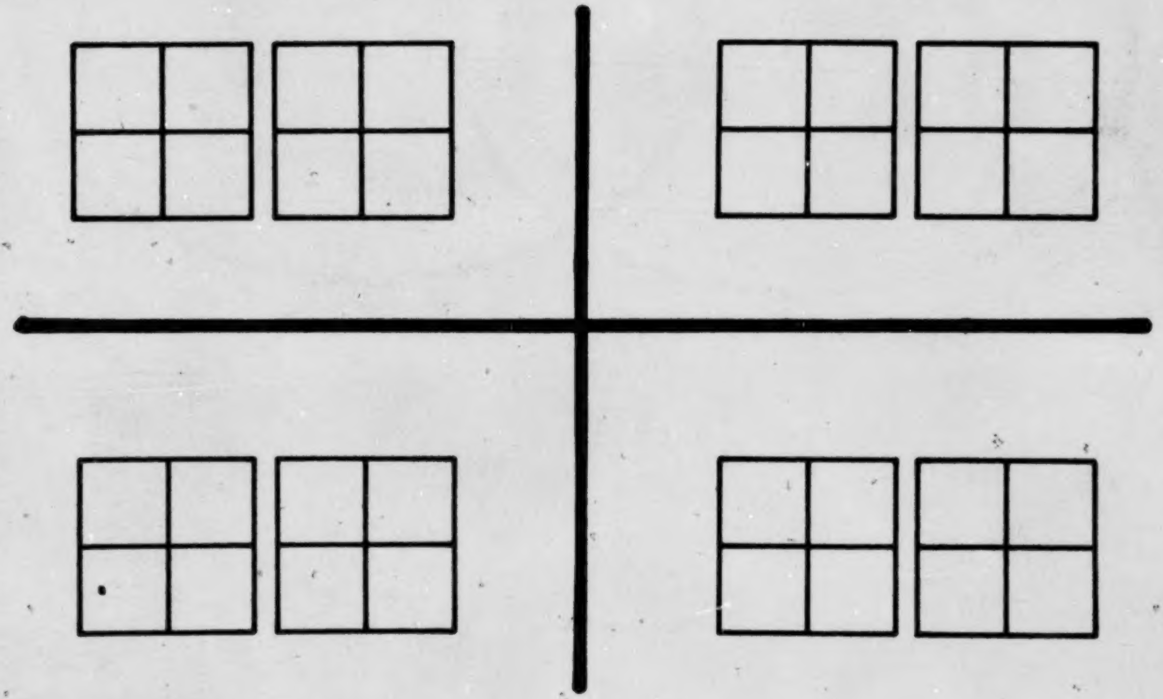
Label the dots.



Put 100 on the Minicomputer in four different ways.

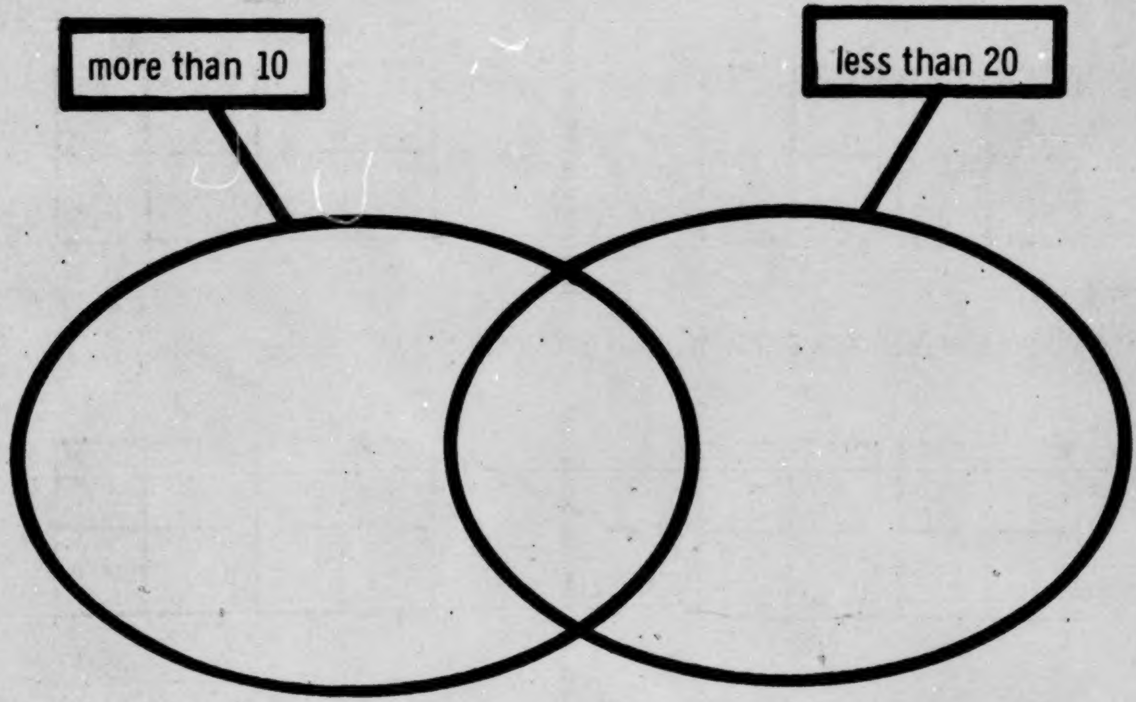


Put 20 on the Minicomputer in four different ways.

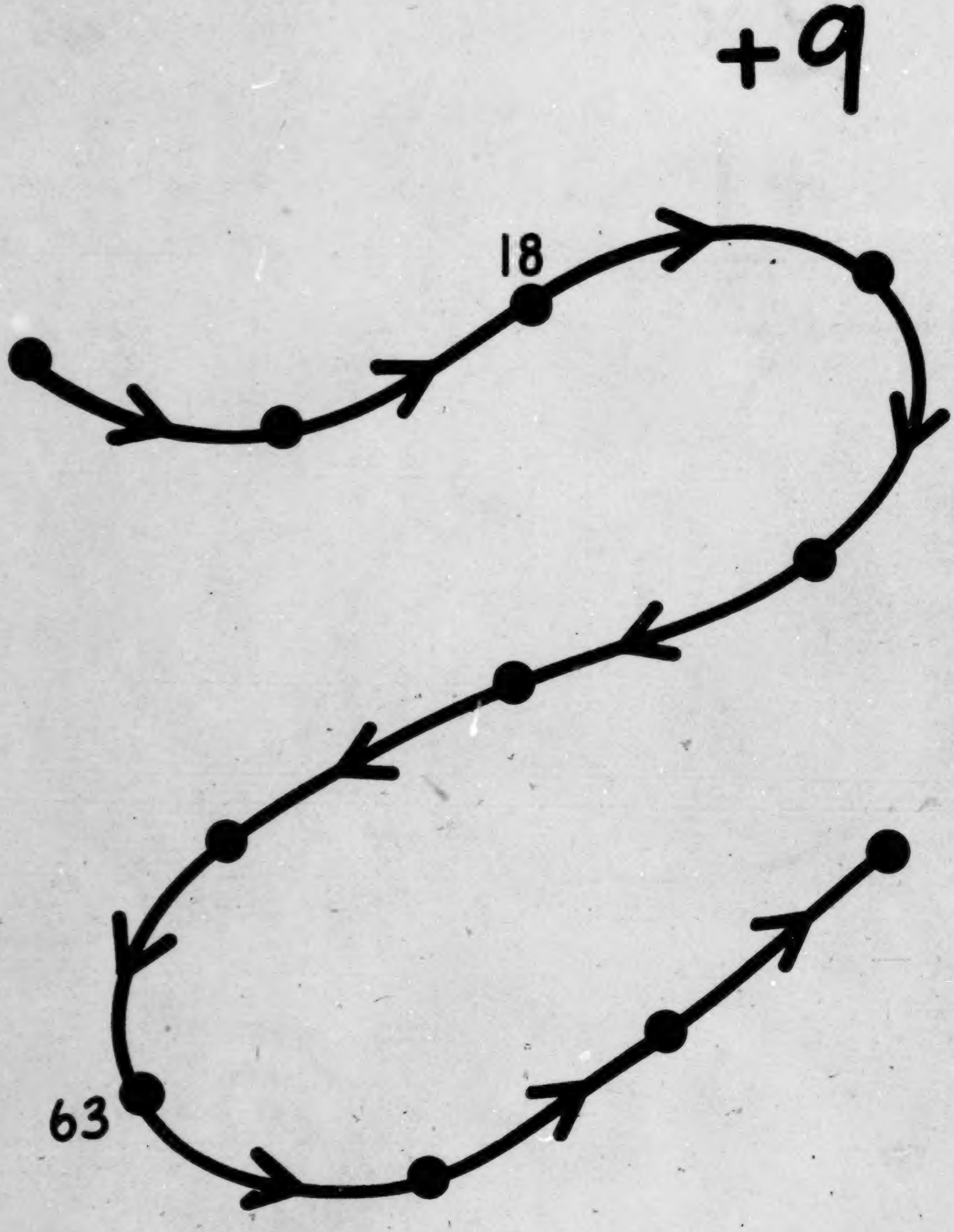


Put these numbers in this string picture.

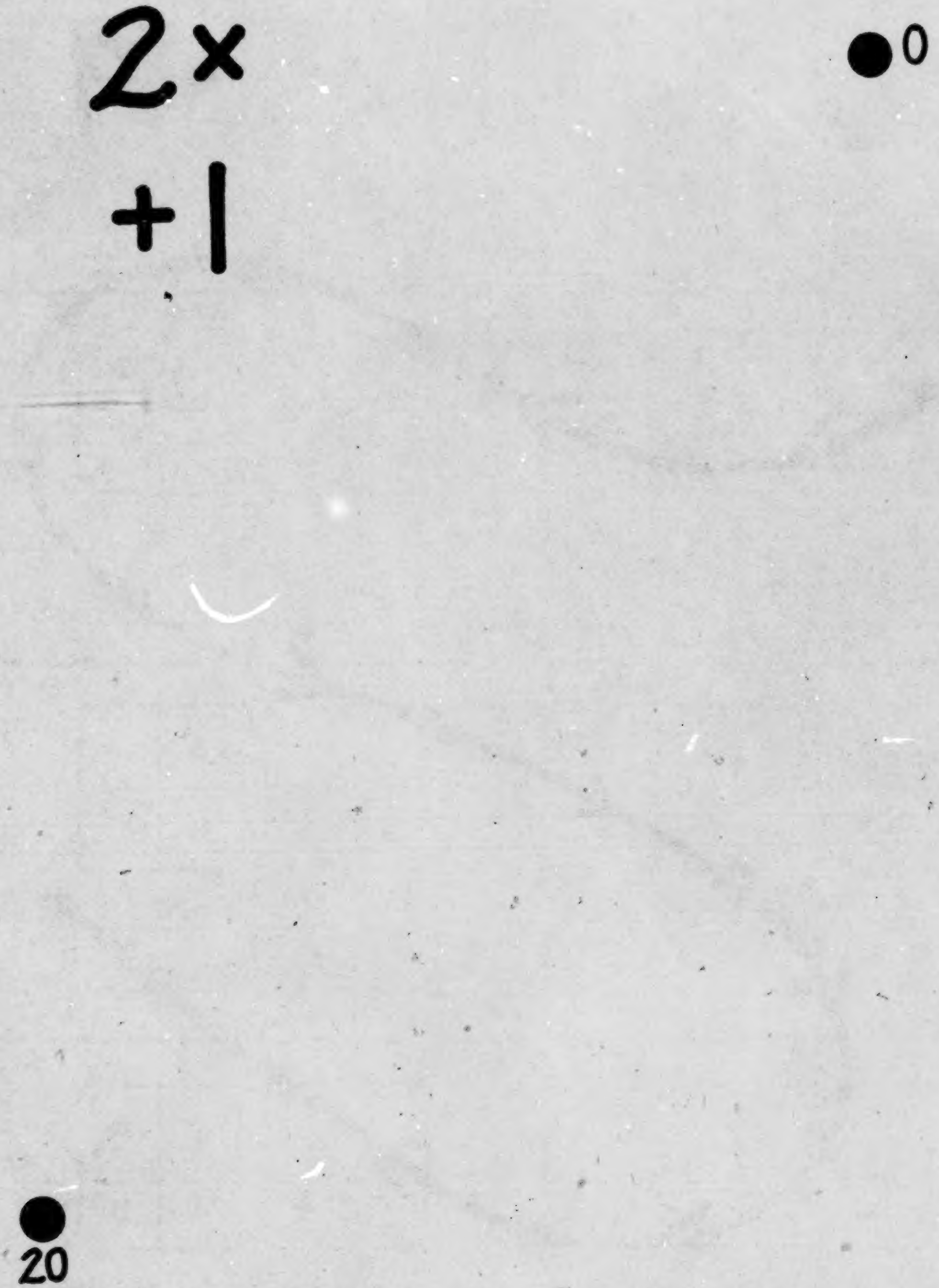
5 10 13 20 24


more than 10
less than 20

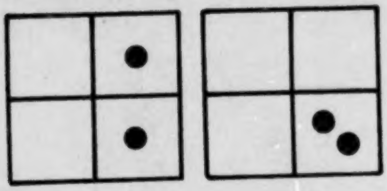
Label the dots.

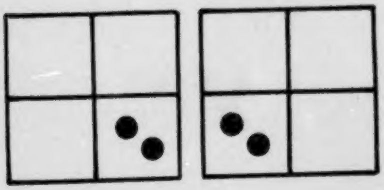


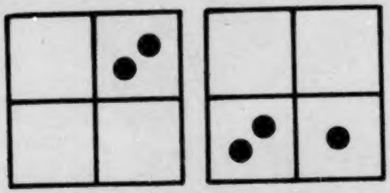
Build a red-blue road from 0 to 20.

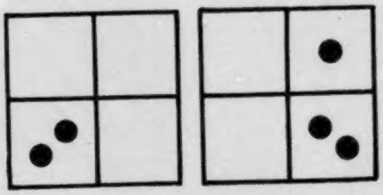


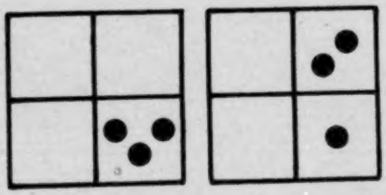
What number is on the Minicomputer ?

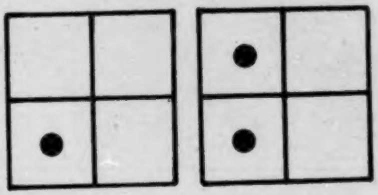


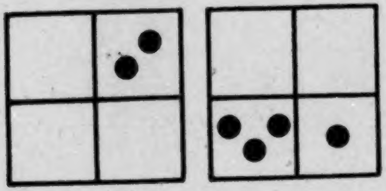


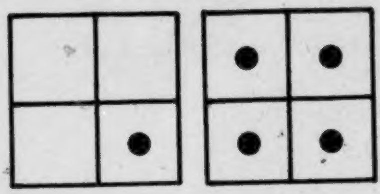










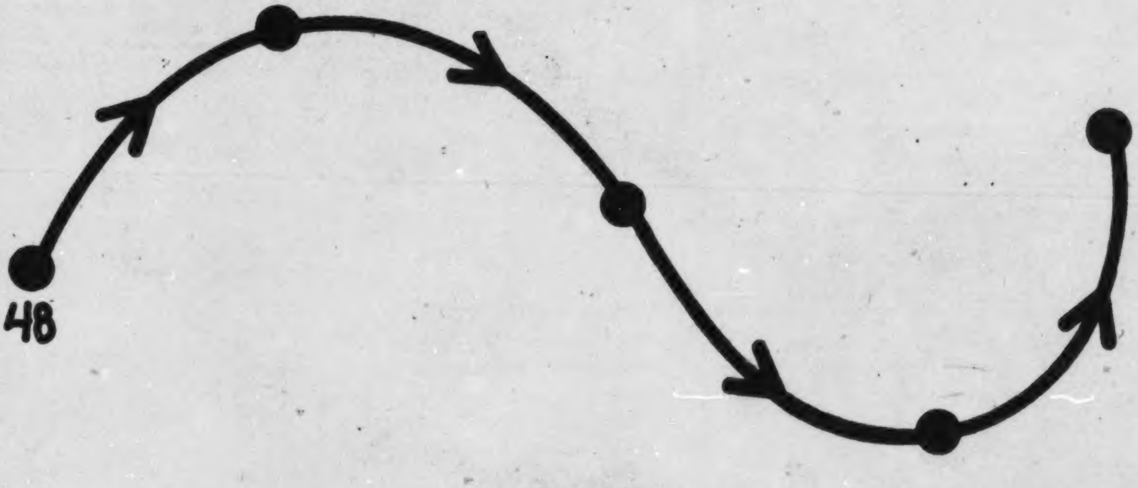


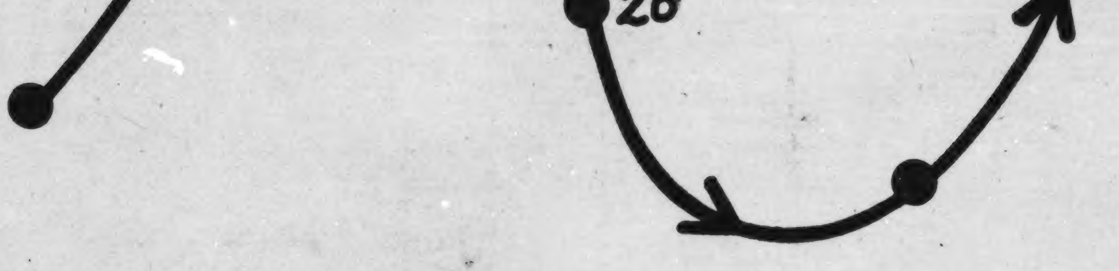
Show ways to make 50¢. One is done for you.

Quarters	Dimes	Nickels
25¢	10¢	5¢ 5¢ 5¢

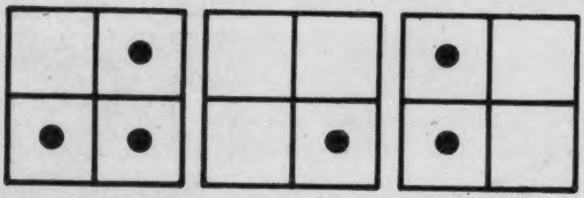
Label the dots.

$\frac{1}{2} \times$

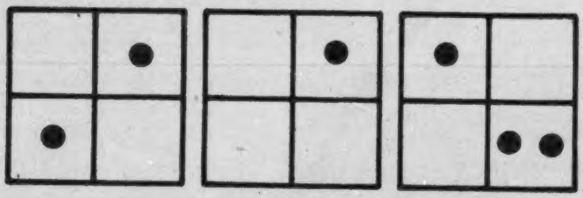




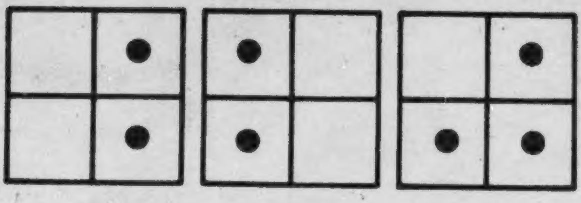
What number is on the Minicomputer?



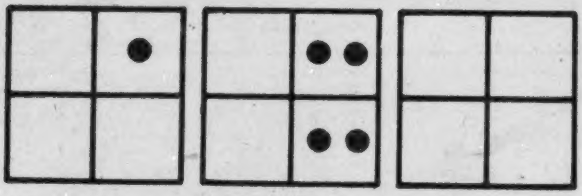
= ______



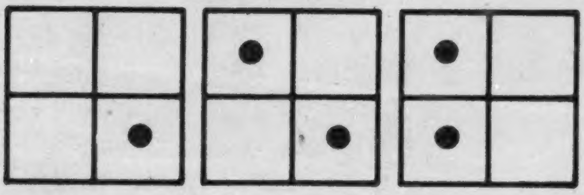
= ______



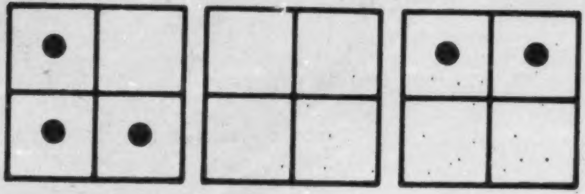
= ______



= ______

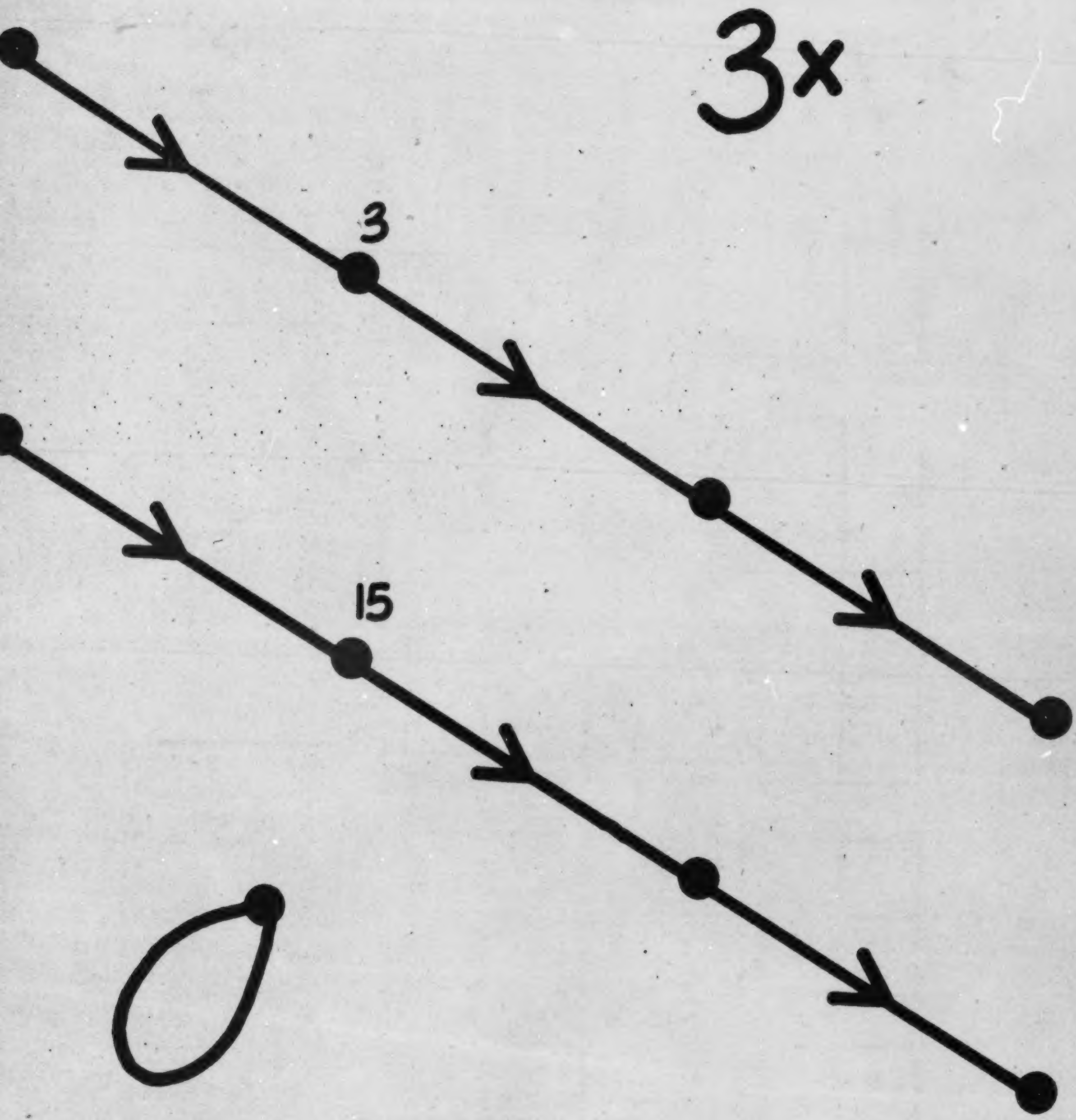


= ______



= ______

Label the dots.



221

Build a red-blue road from 0 to 50.

+7

-4

● 0

● 50

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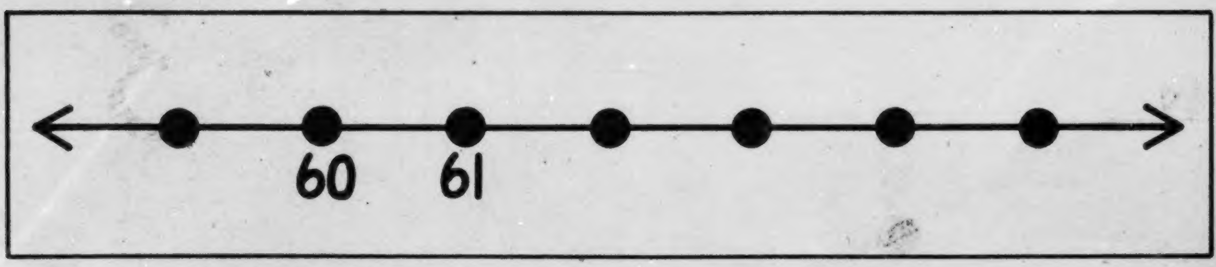
Name ______________________

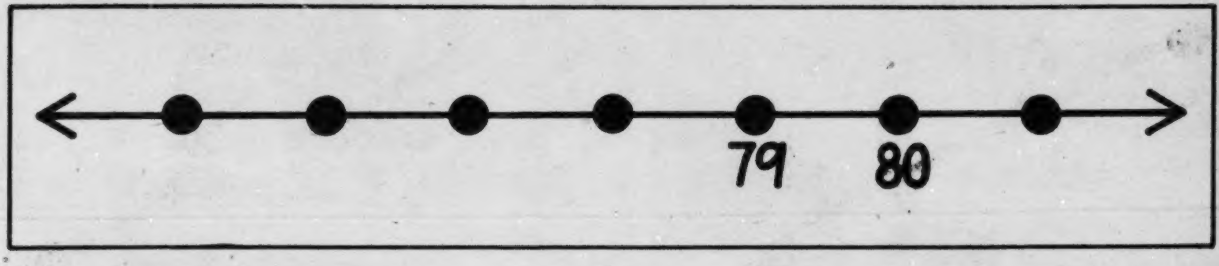
3-41901

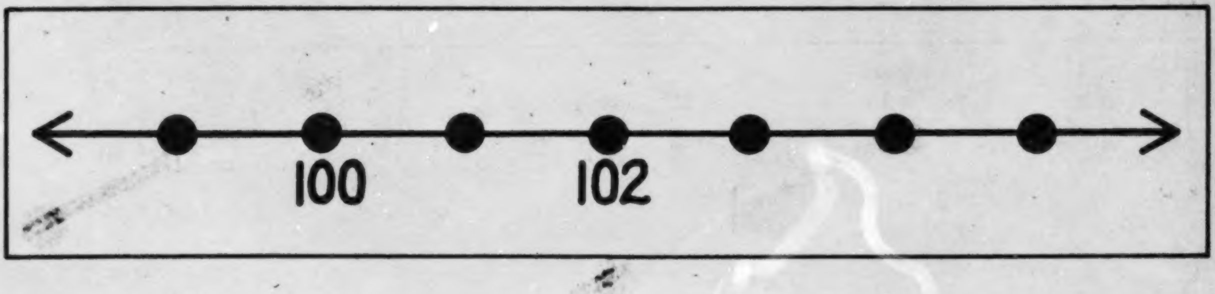
FESTIVAL PROBLEMS 2

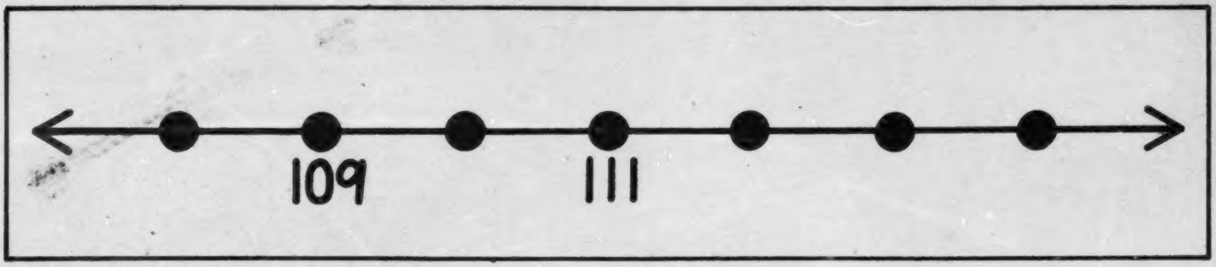
MAY 16 1980

Label the dots on these number lines.

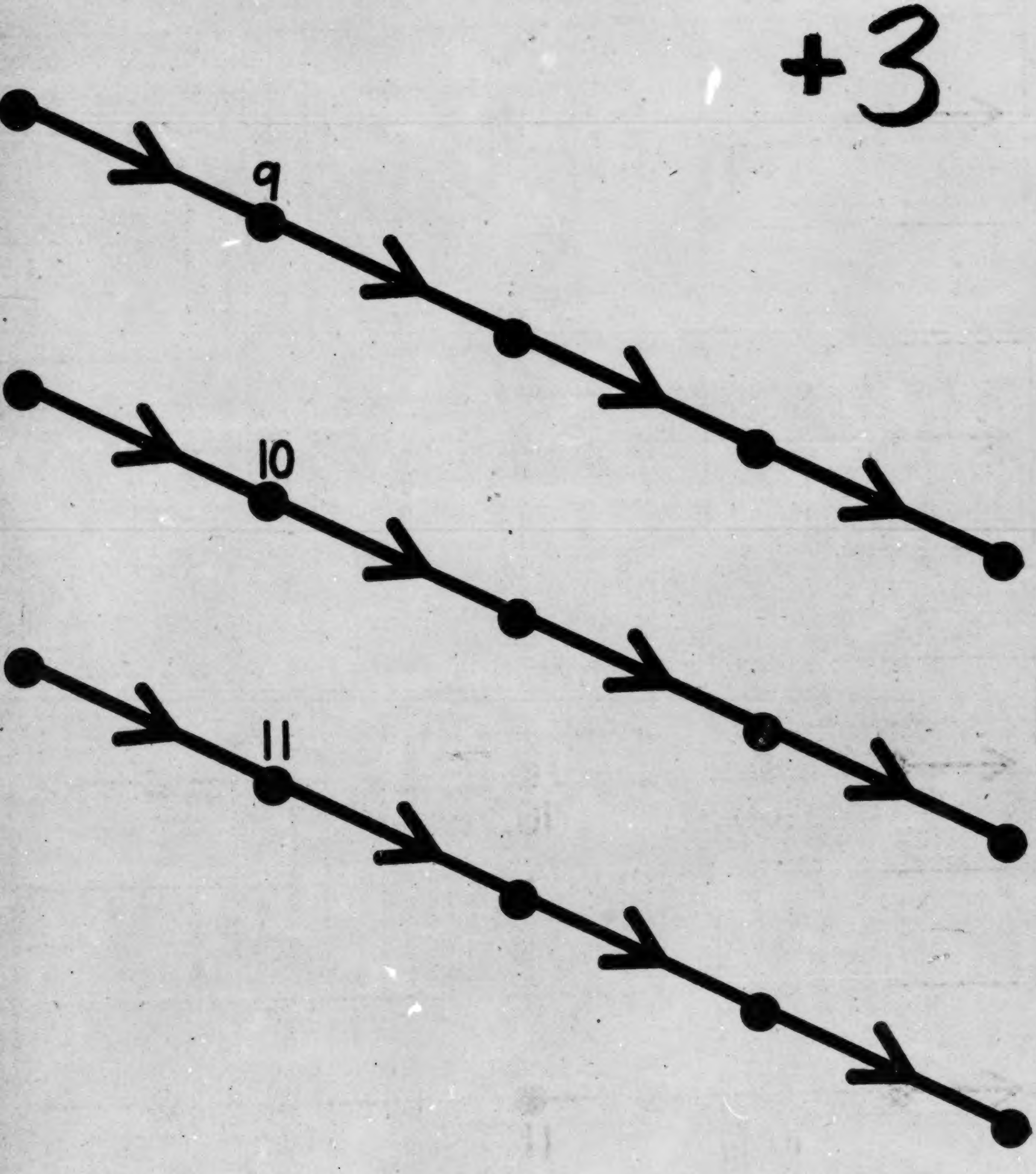




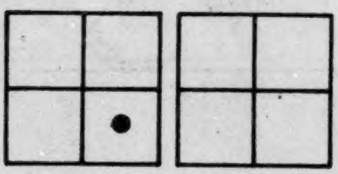




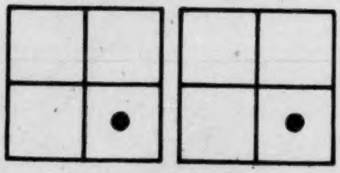
Label the dots.



What number is on the Minicomputer?



____



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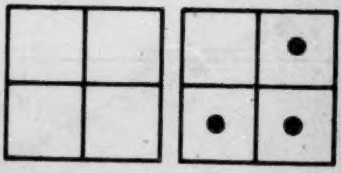

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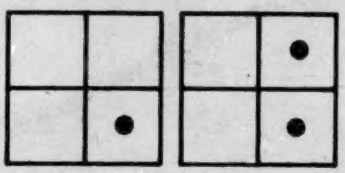

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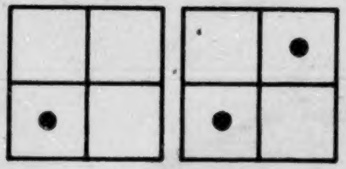

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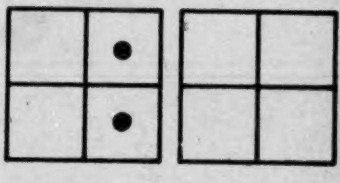

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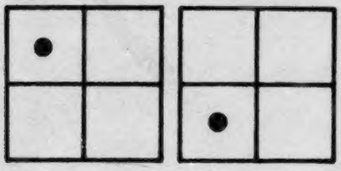

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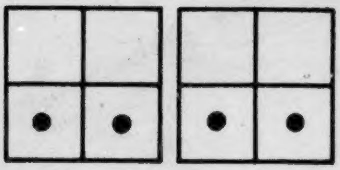

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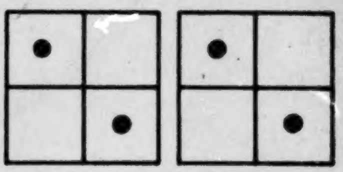
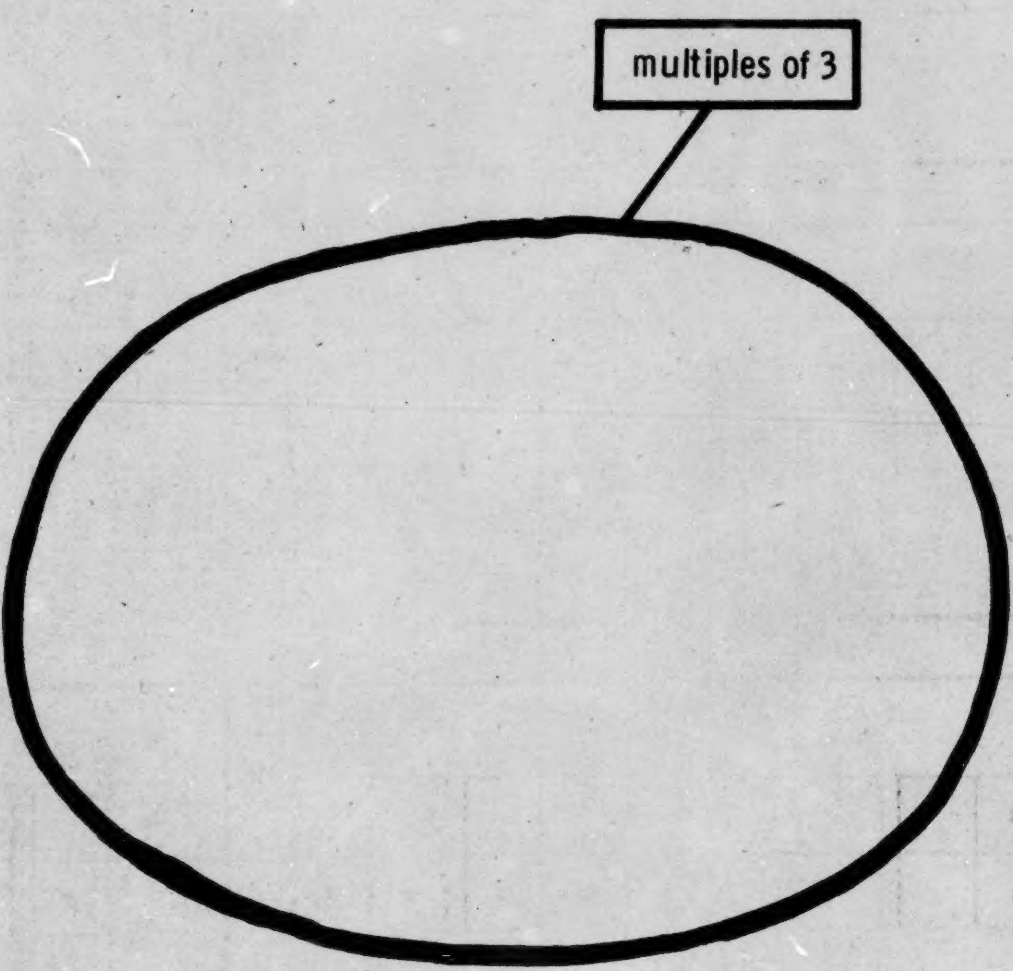


____

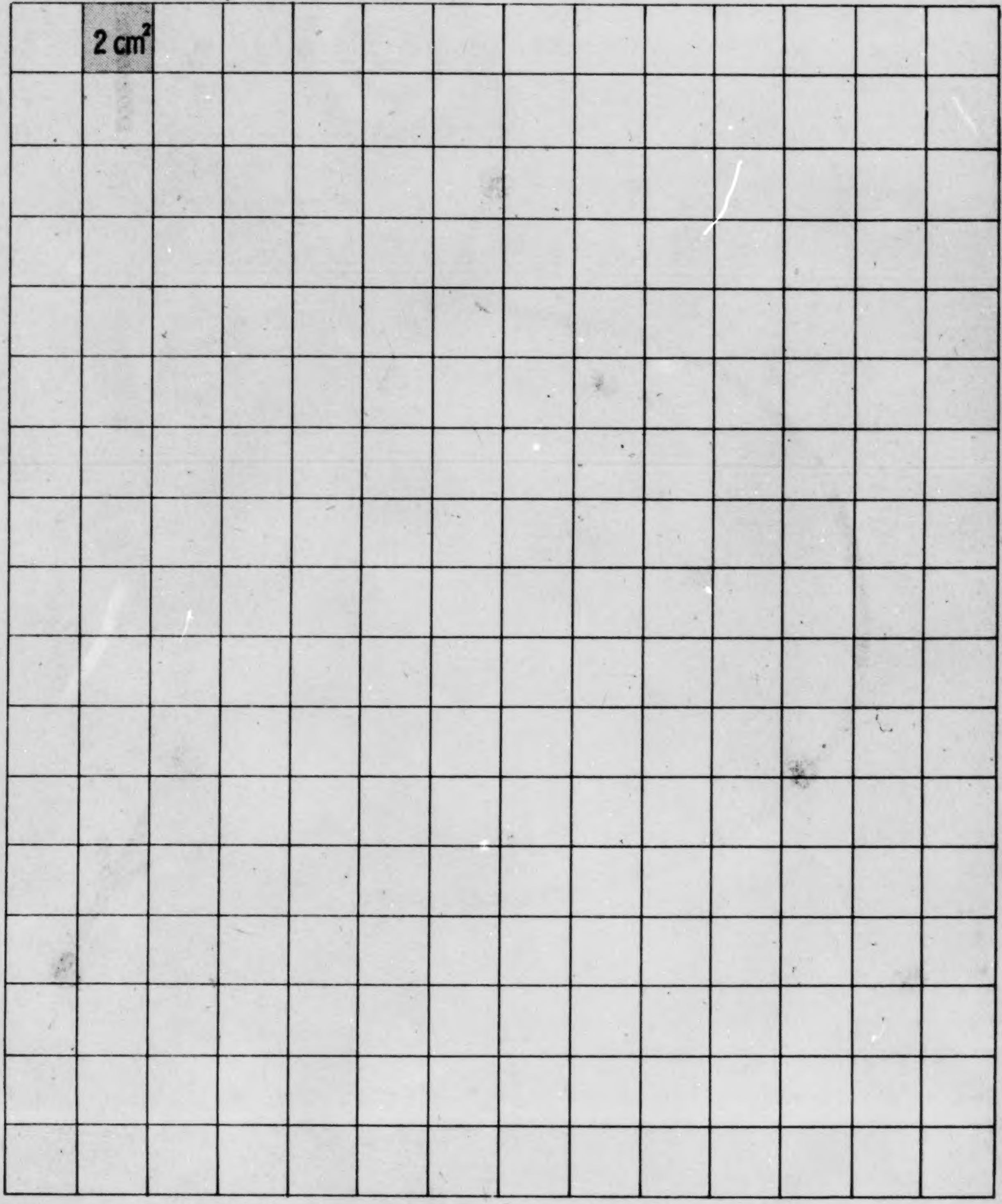
Put at least ten numbers in this string picture.


multiples of 3

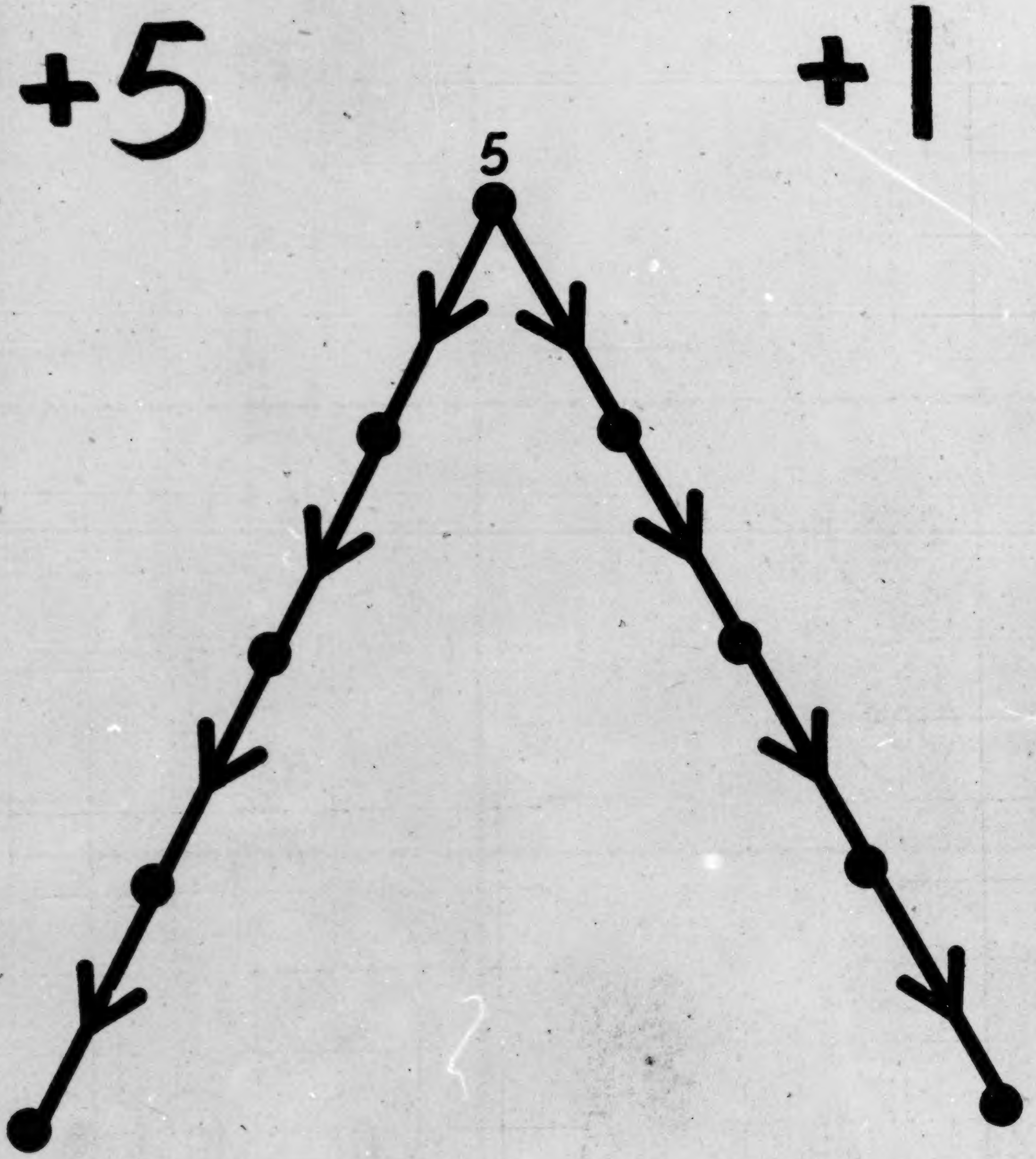
Each little square has area 2 cm^2.

Color a red shape with area 12 cm^2.

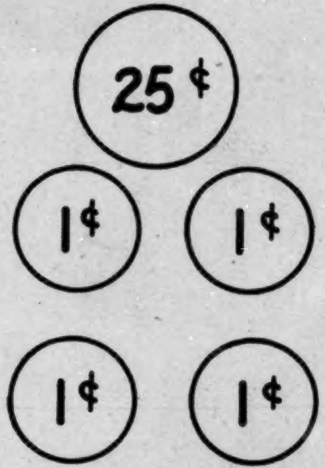
Color a blue shape with area 18 cm^2.



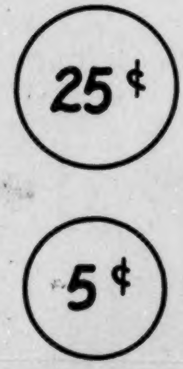
Label the dots.



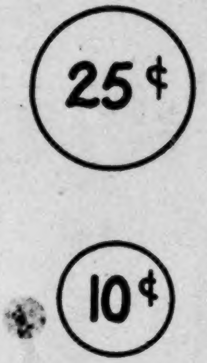
How much money?



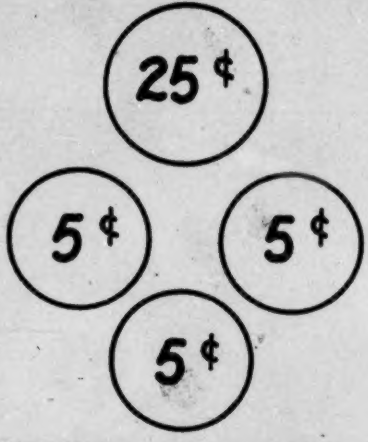
____ ¢



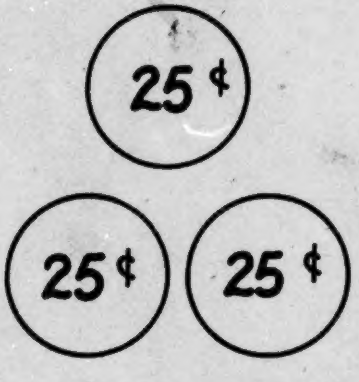
____ ¢



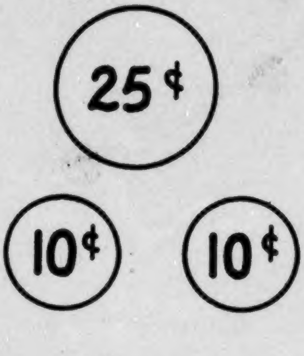
____ ¢



____ ¢



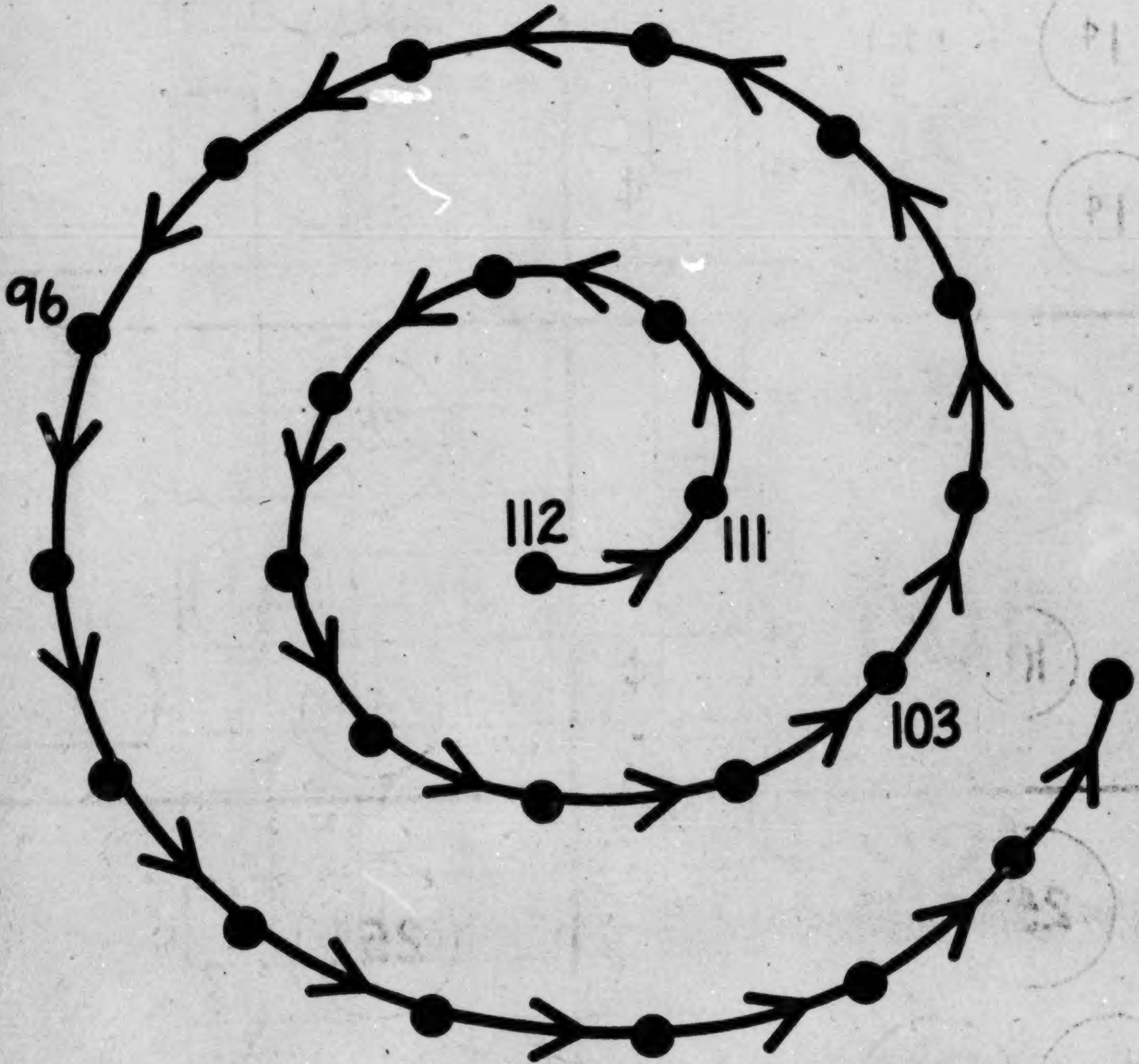
____ ¢



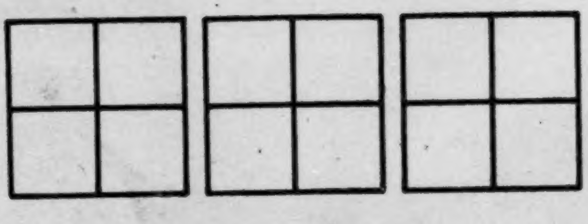
____ ¢

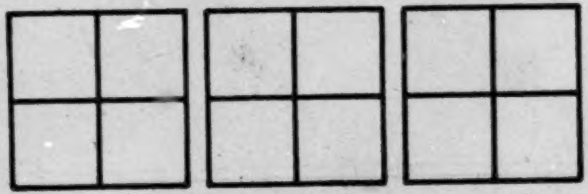
Label the dots.

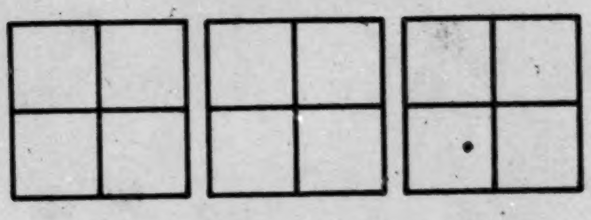
−1

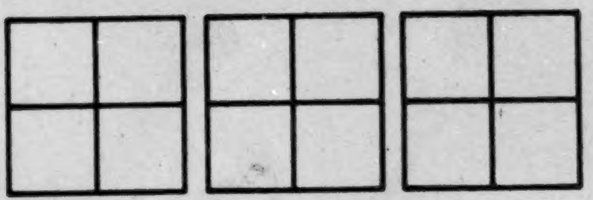

96
112
111
103

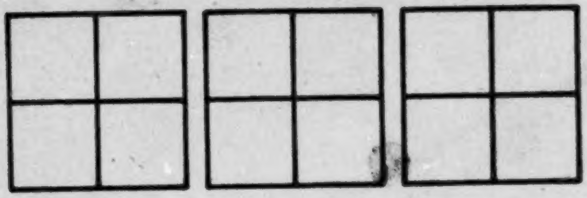
Put these numbers on the Minicomputer.

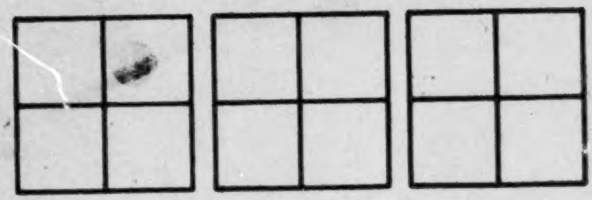
53 = 

70 = 

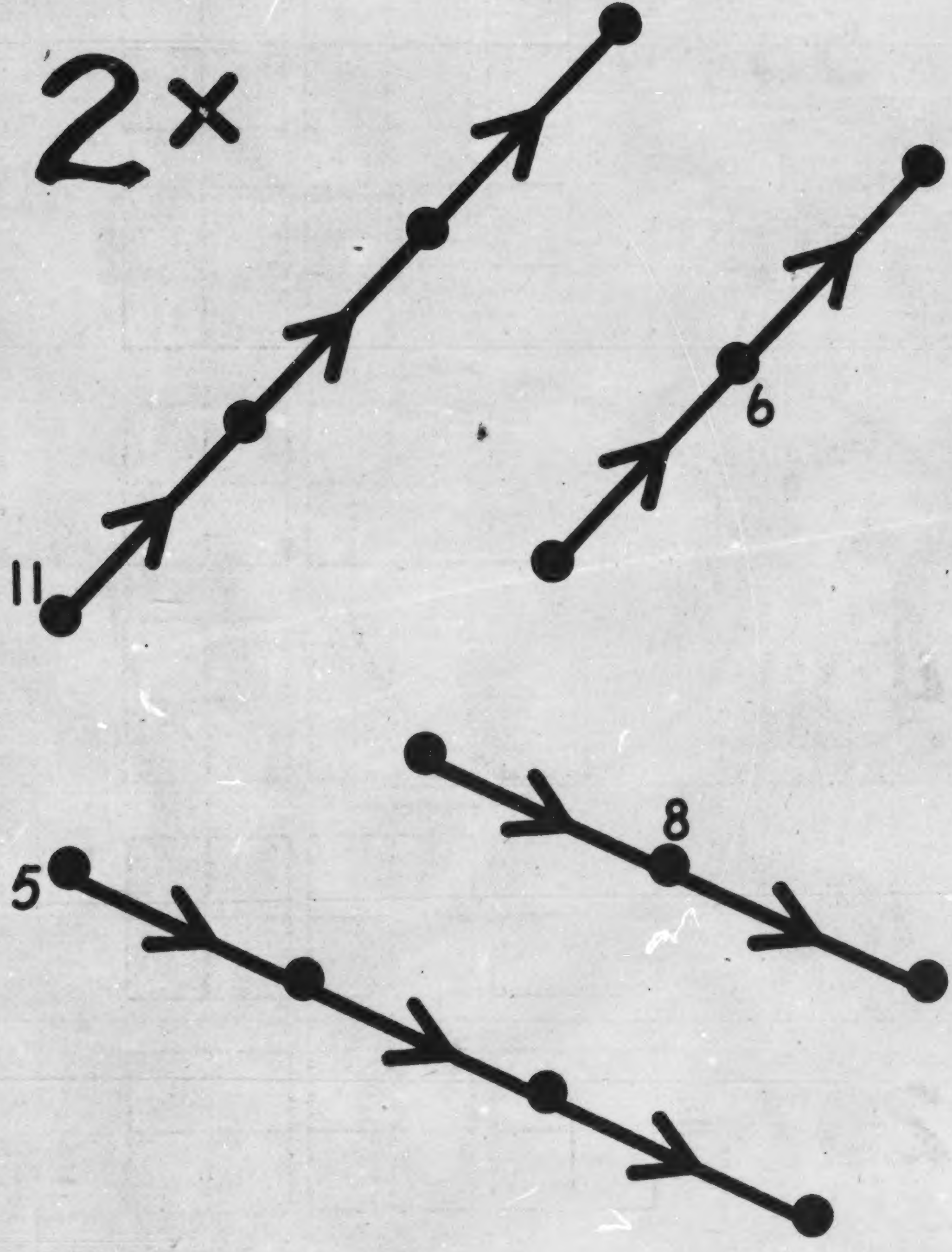
96 = 

400 = 

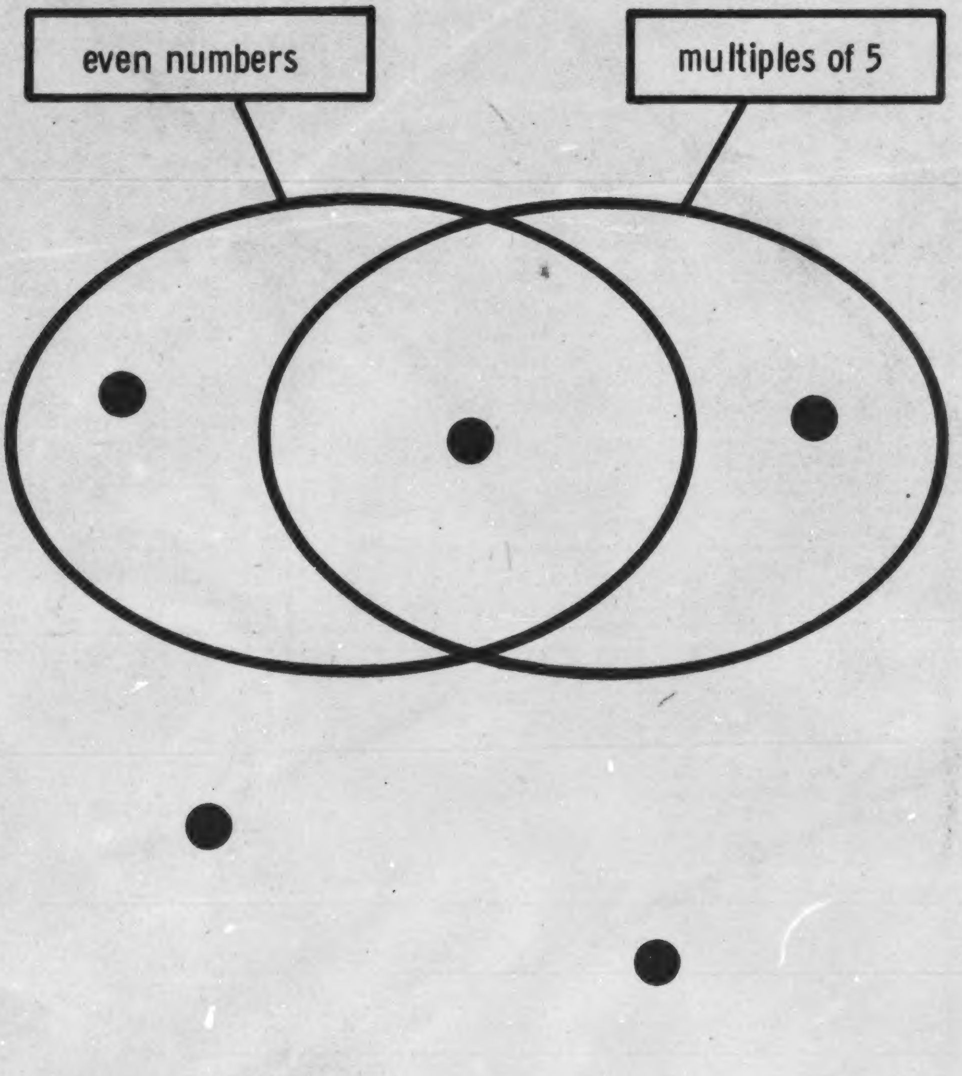
182 = 

207 = 

abel the dots.



Label the dots in this string picture.
Many answers are possible.


even numbers
multiples of 5

uild a red-blue road from 5 to 81.

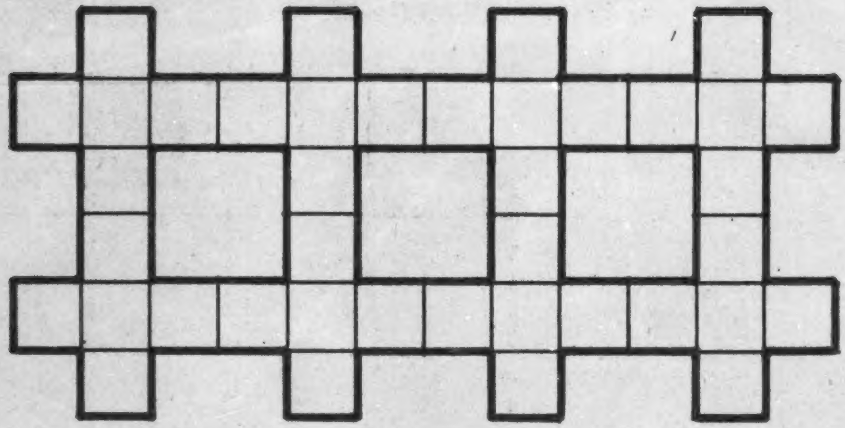
5
●

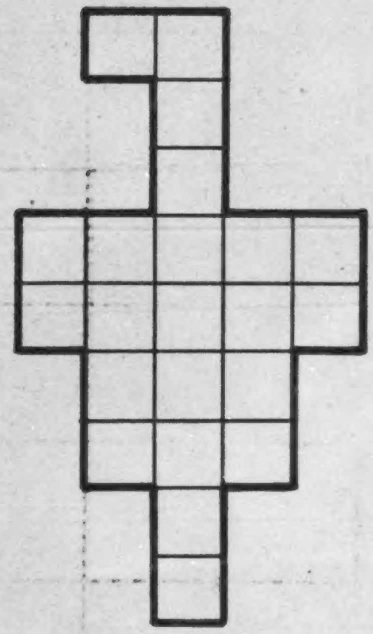
+10

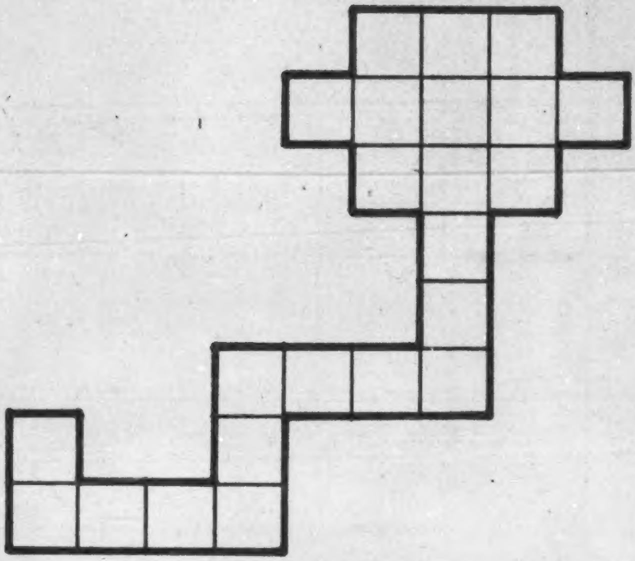
+1

●
81

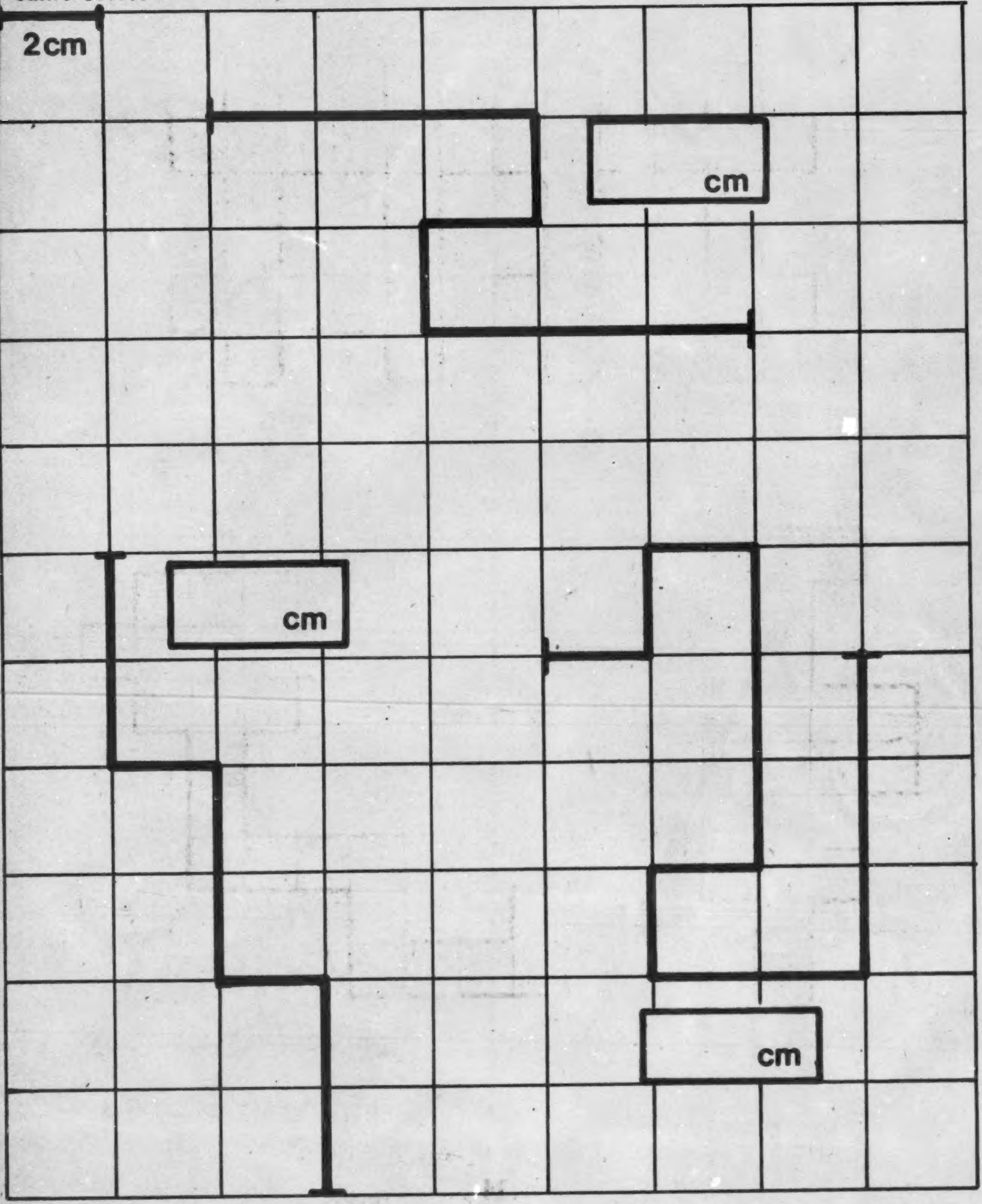
Color each shape one-half red and one-half blue.



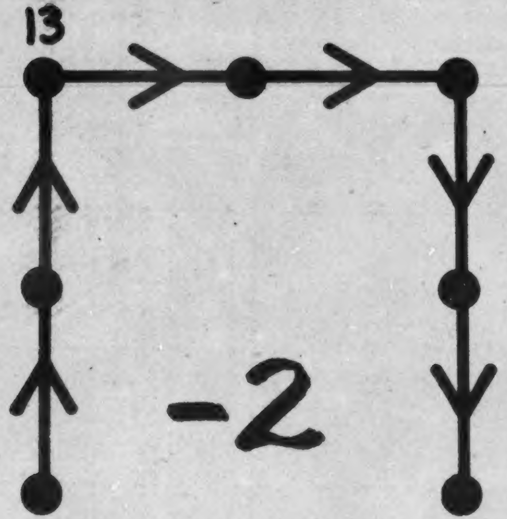


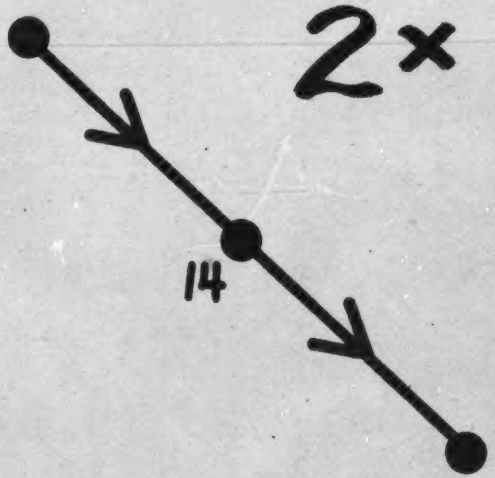


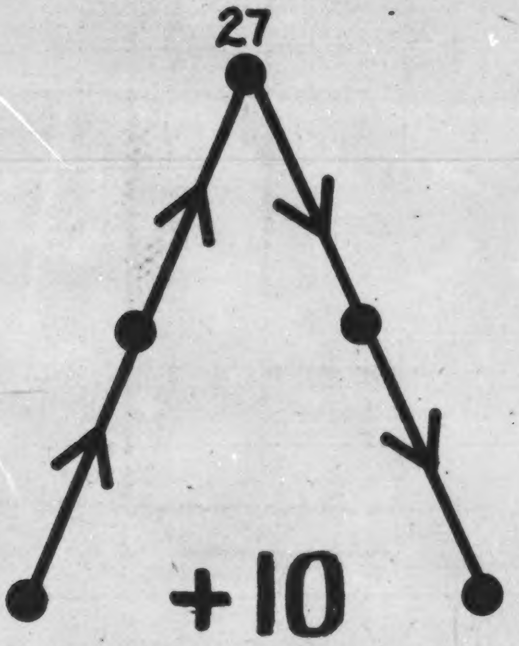
Find the length of each zigzag path and put your answer in the box of the same color.

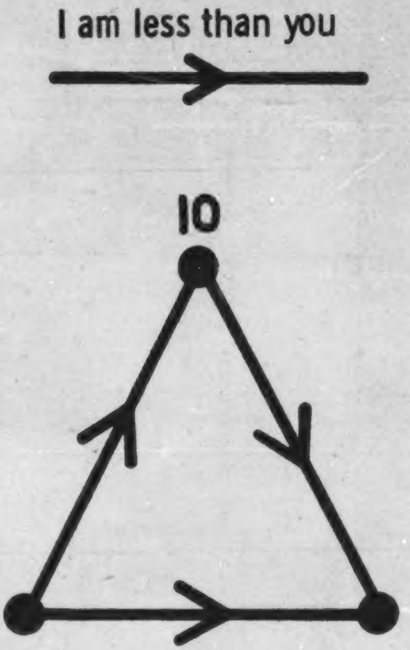


7 is in each of these arrow pictures.
In each one, circle its dot.



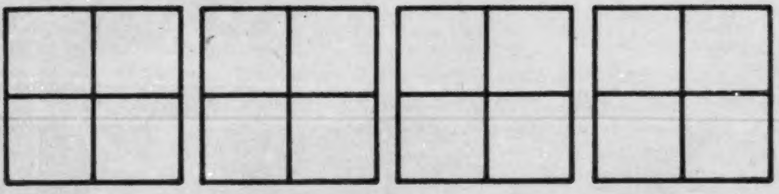




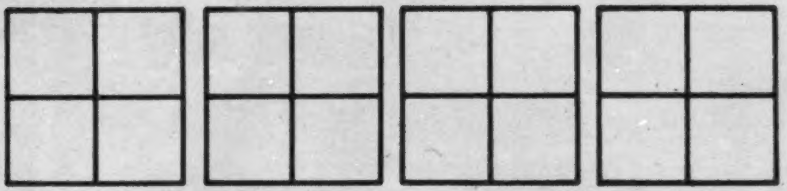

I am less than you
10

Put these numbers on the Minicomputer.

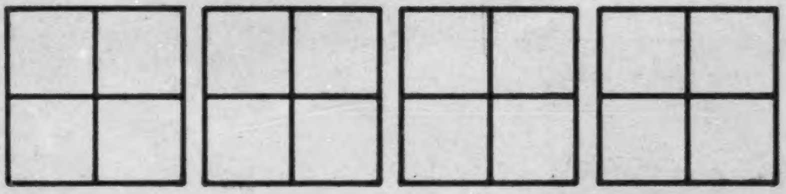
579 =



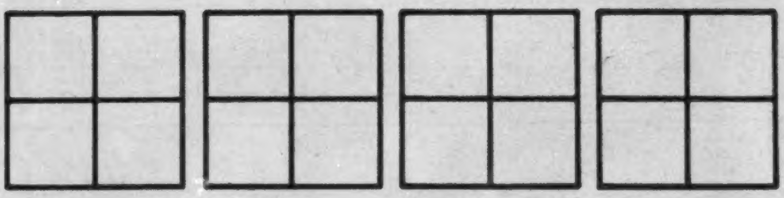
3,006 =



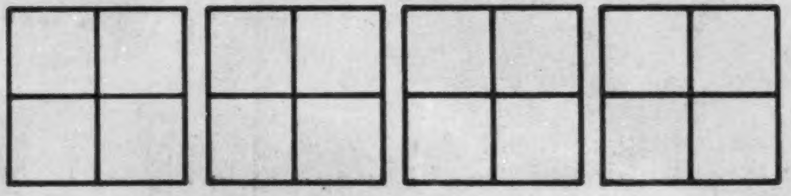
850 =



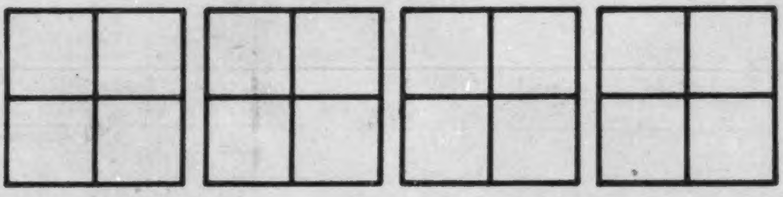
1,500 =



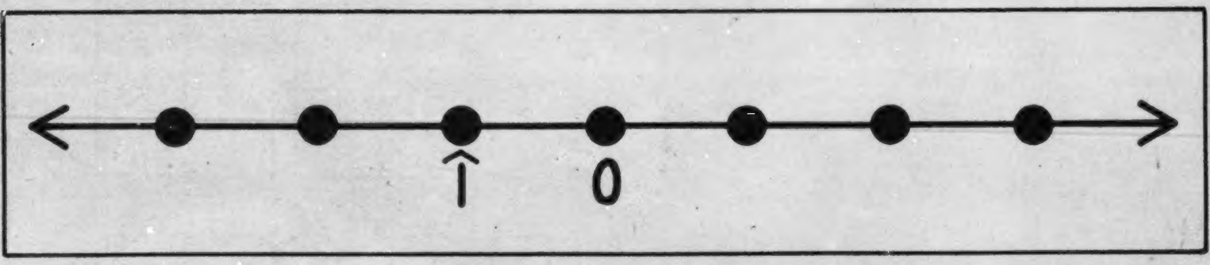
2,014 =

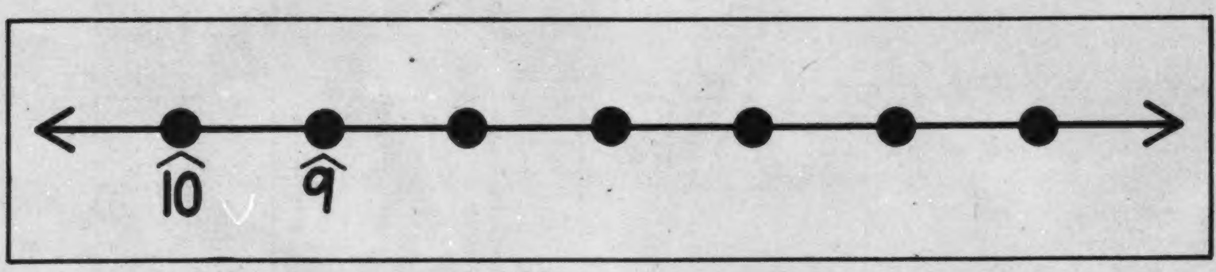


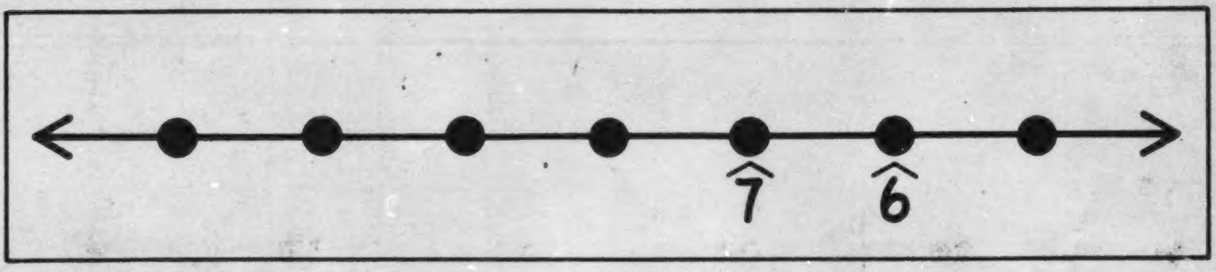
4,108 =

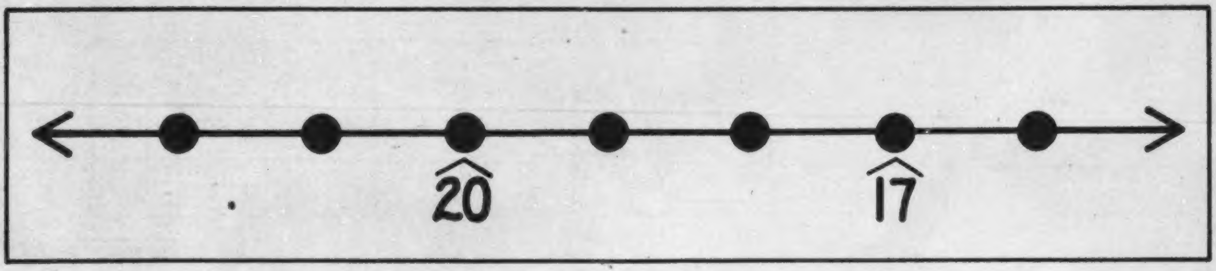


Label the dots on these number lines.



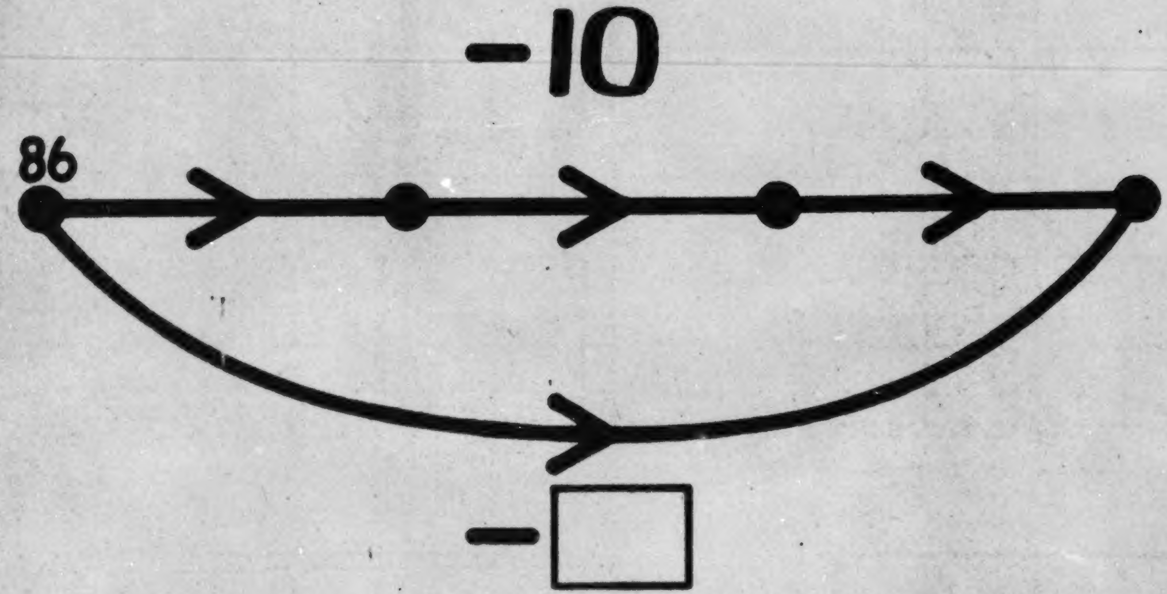

$\widehat{10}$
$\hat{9}$

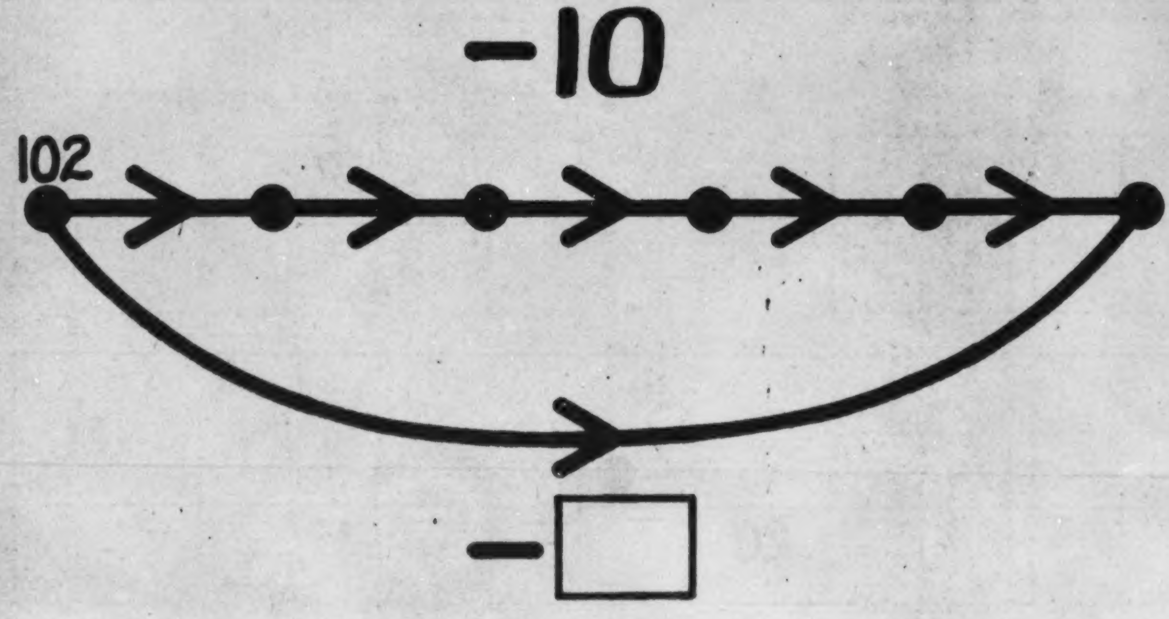



$\widehat{20}$
$\widehat{17}$

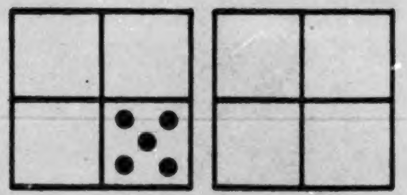
Label the dots.

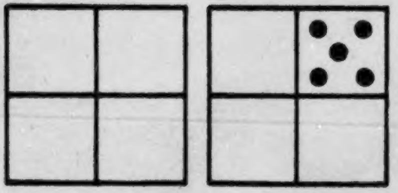
Fill in the box for each blue arrow.





What number is on the Minicomputer?


= ____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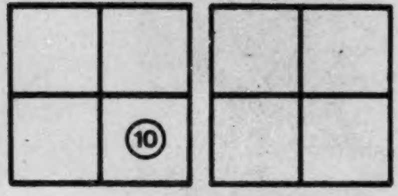
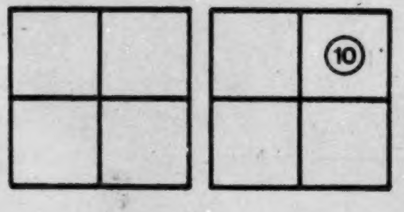


= ____



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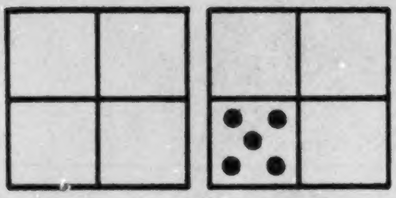
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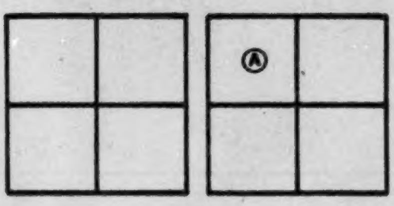
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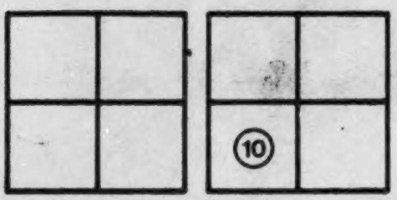
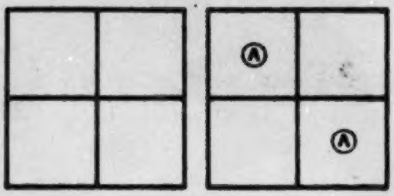
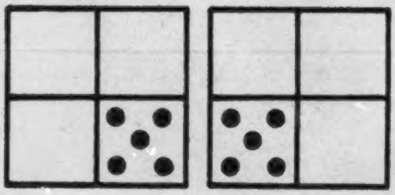
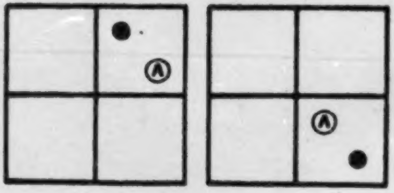


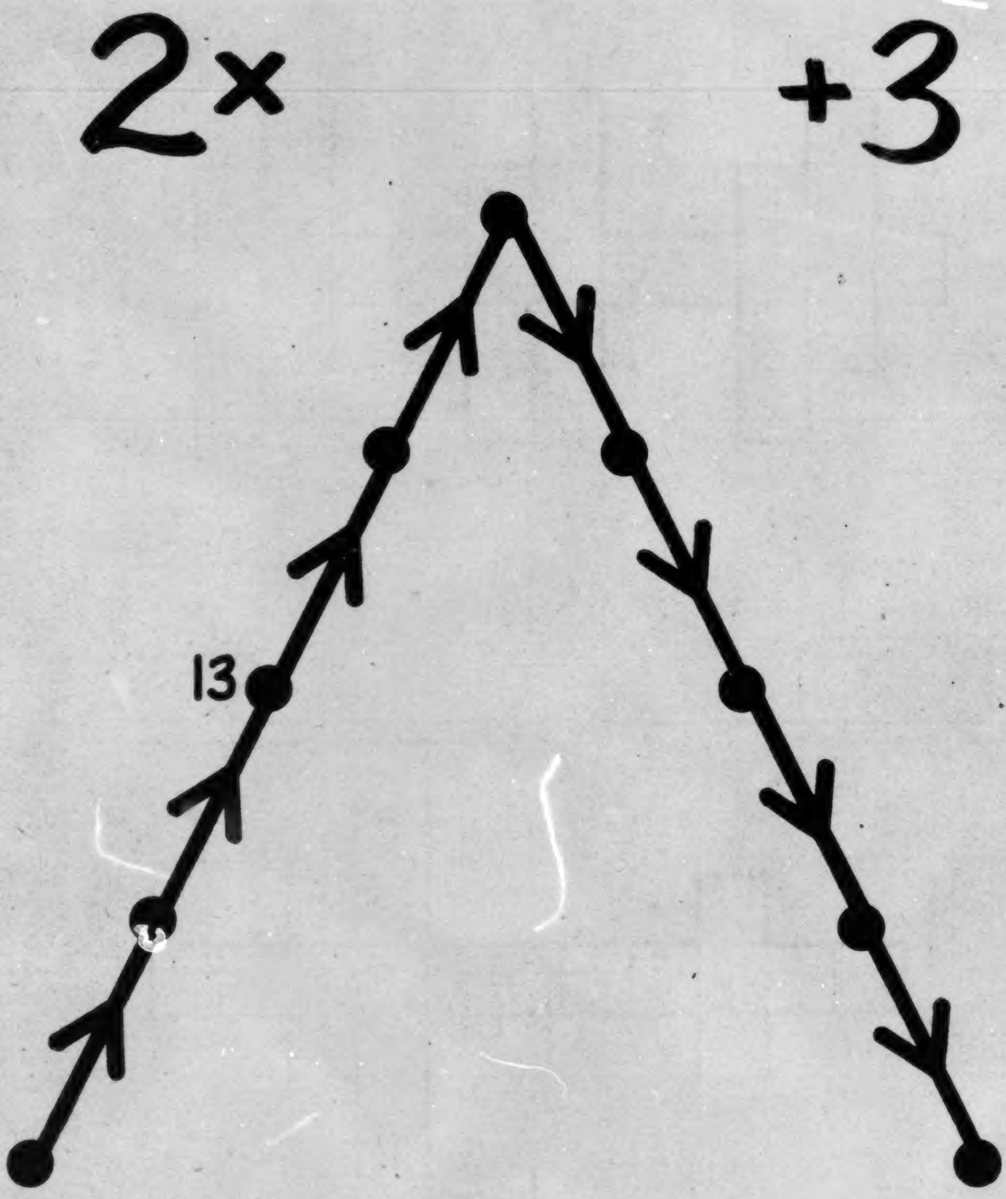
= ____


= ____

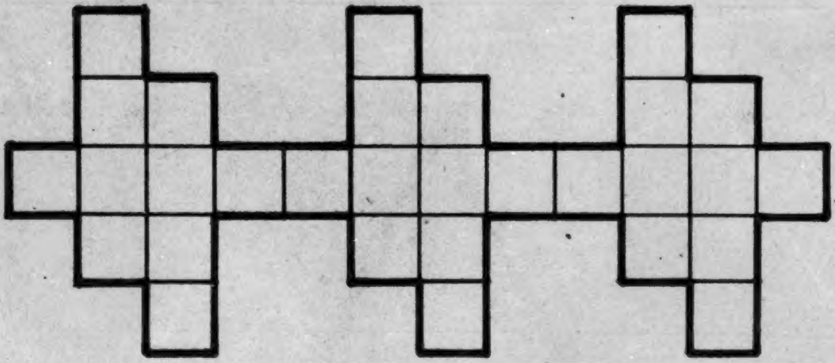

= ____

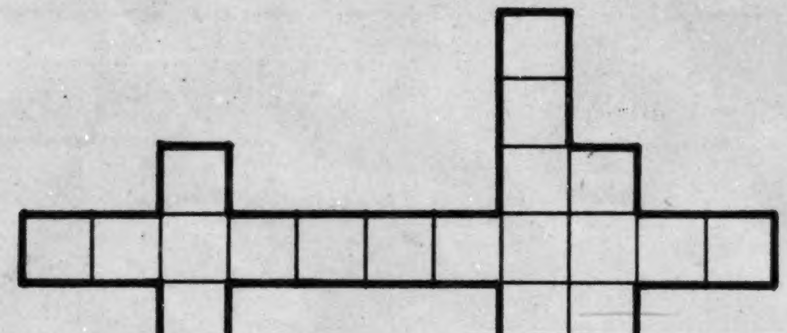

= ____

Label the dots.



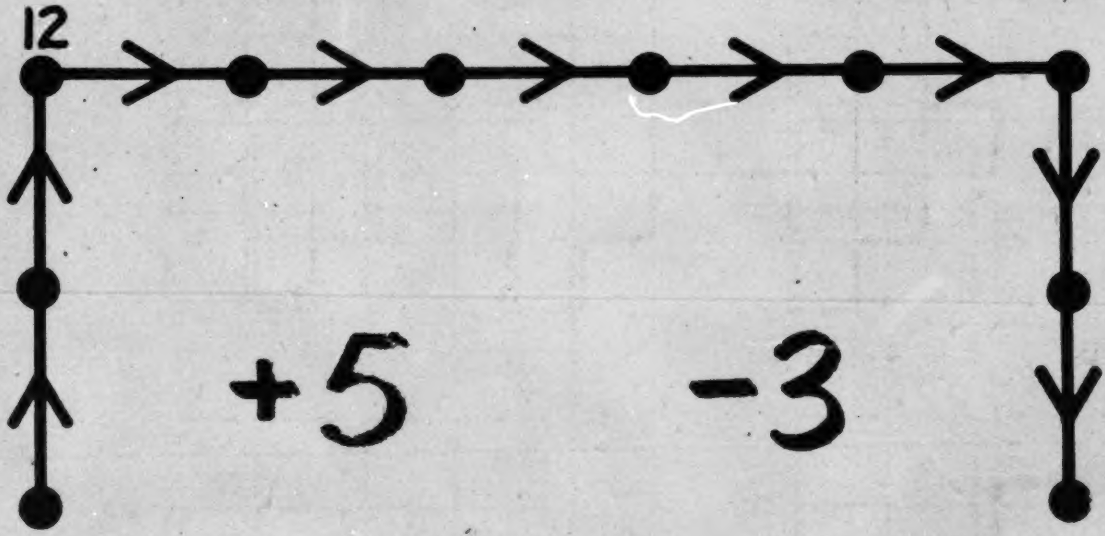
Color each shape one-third red, one-third blue, and one-third green.

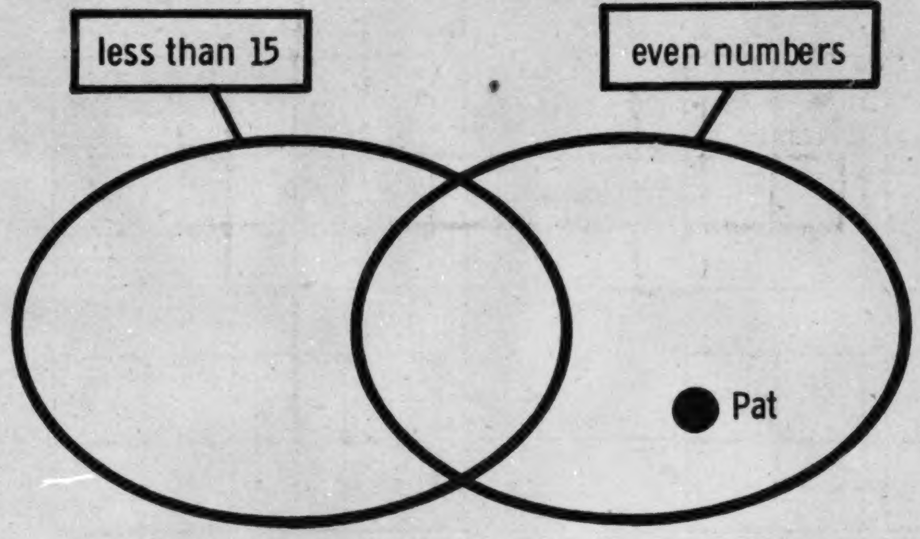




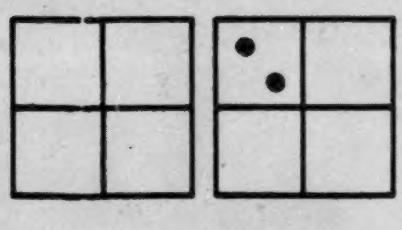
Pat is a secret number.

Pat is in this arrow picture and in this string picture.
Who is Pat? ______________

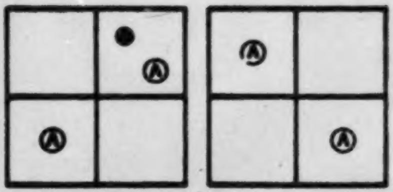



less than 15
even numbers
Pat

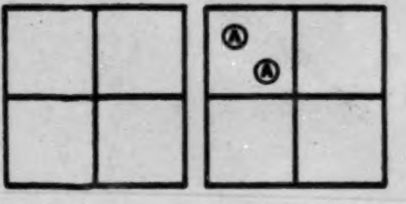
What number is on the Minicomputer?



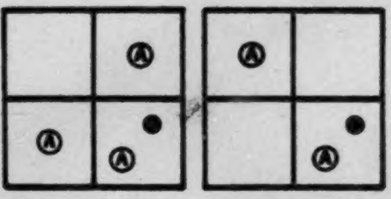
= ______



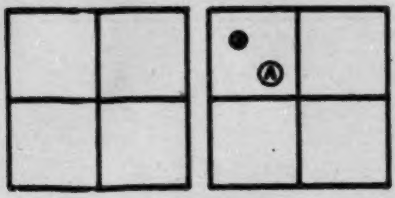
= ______



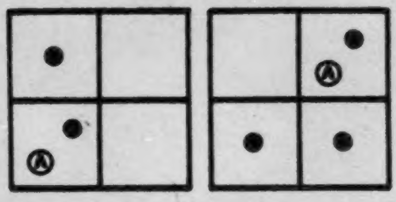
= ______



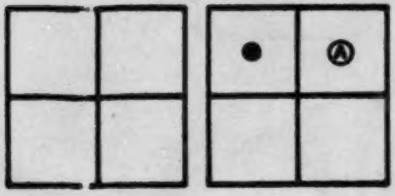
= ______



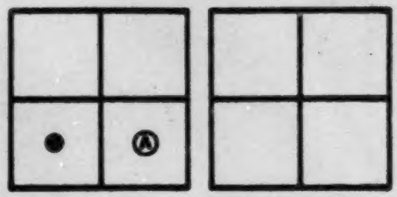
= ______



= ______



= ______



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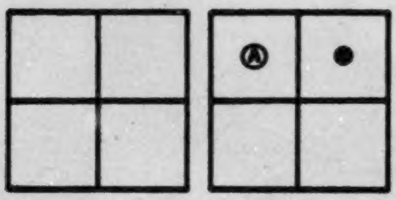
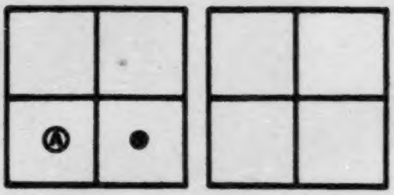


= ______

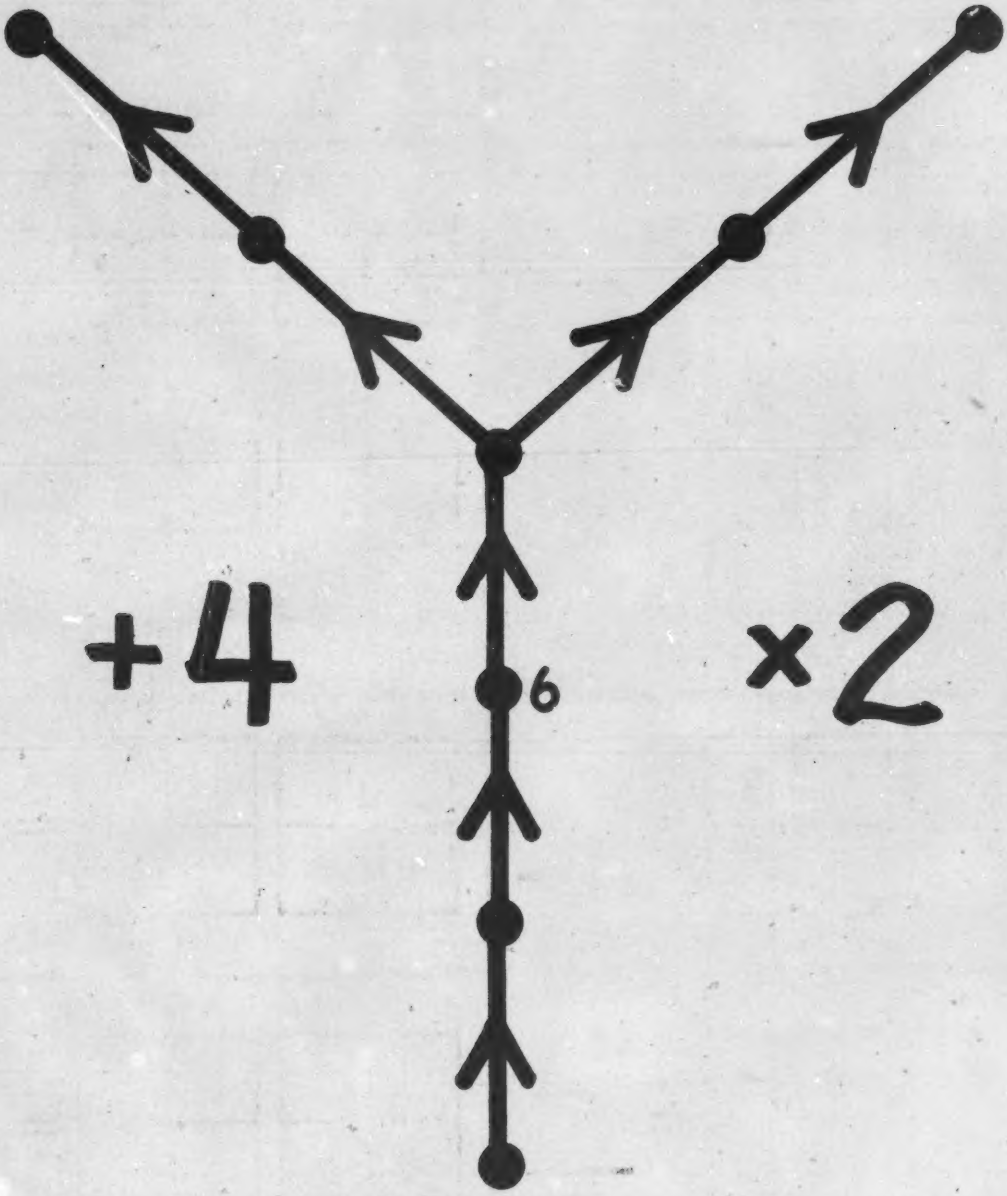


= ______

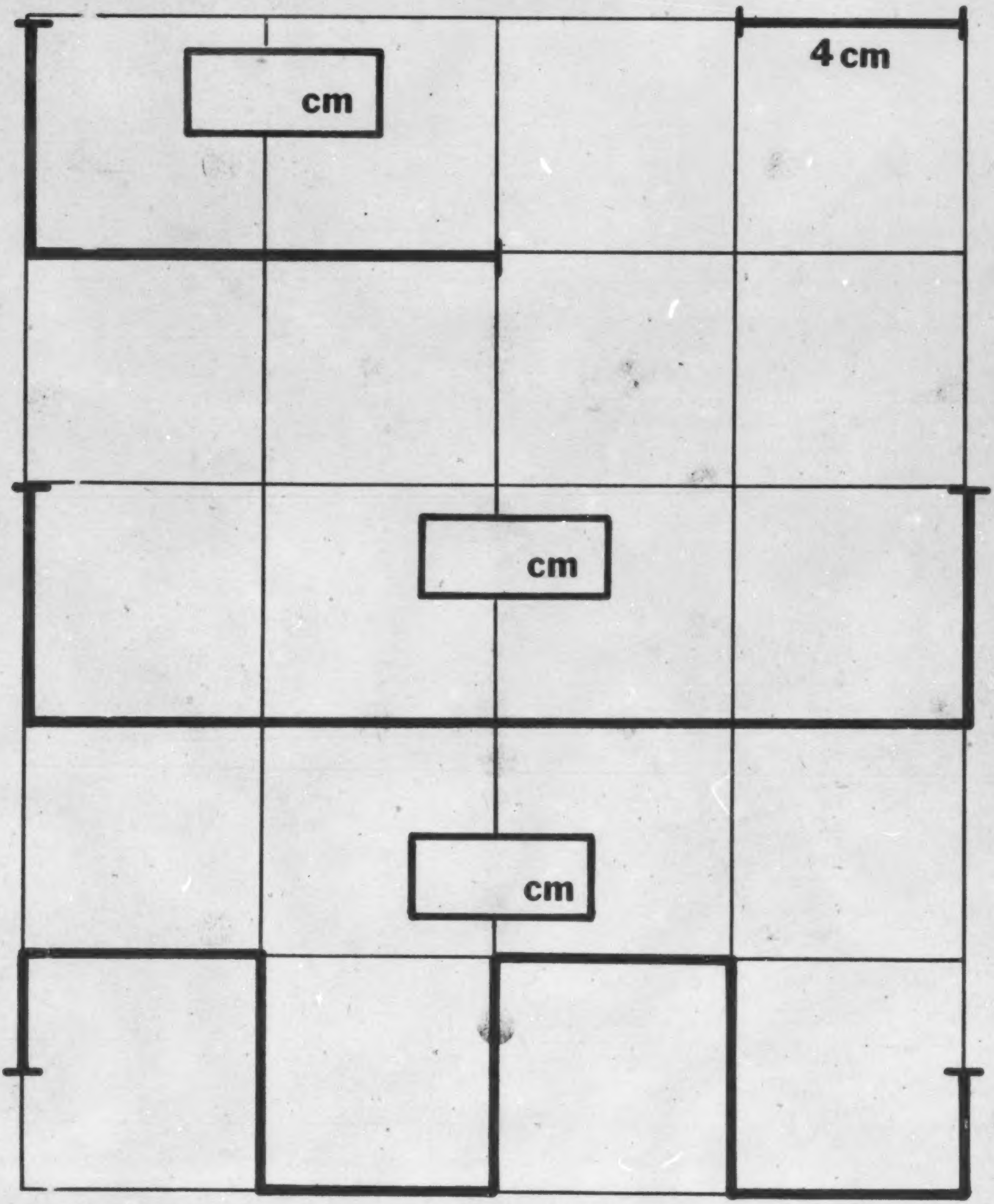
Pam is a secret number.

Pam is a multiple of 5 and in this arrow picture.

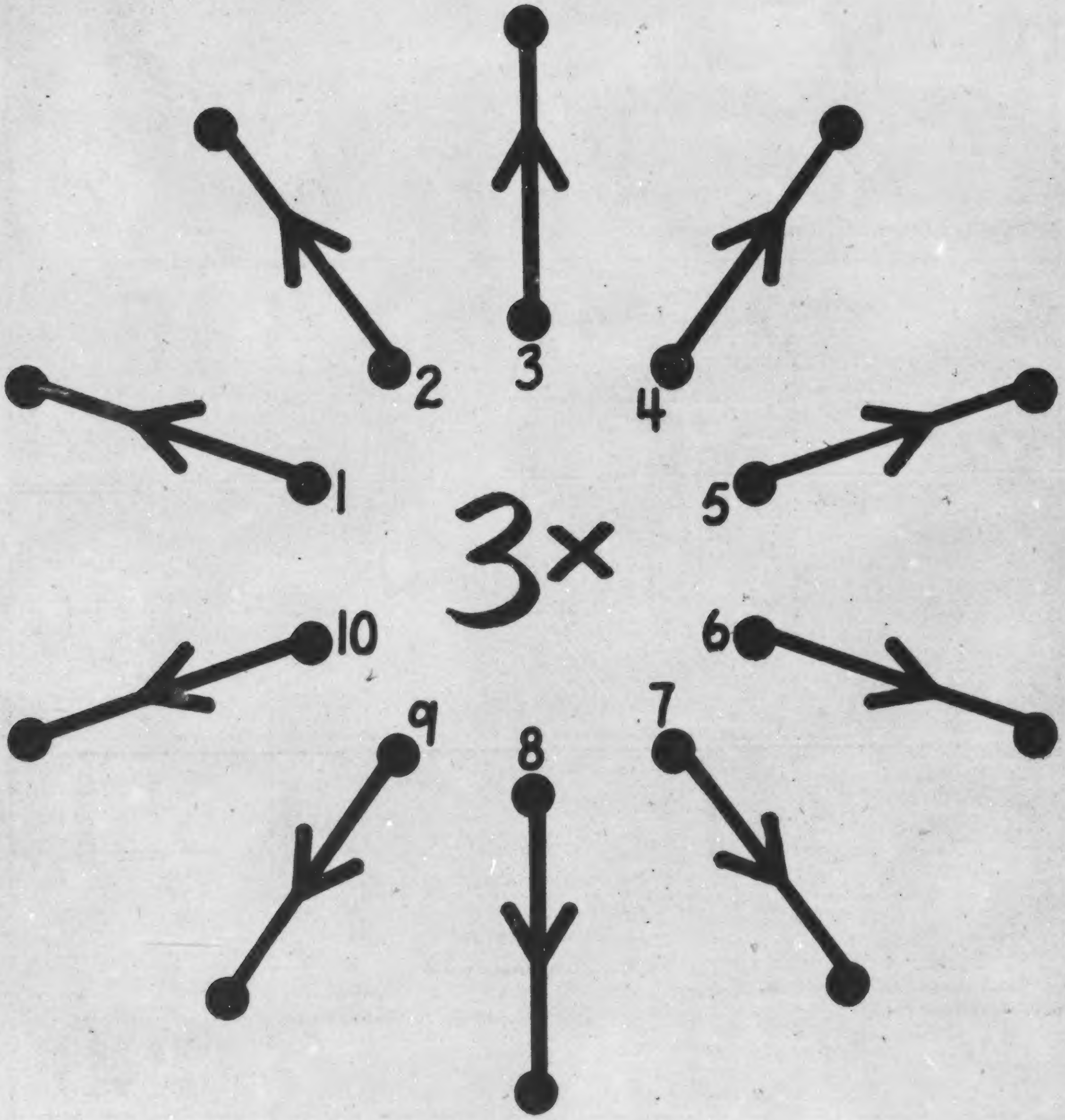
Who is Pam? ________________



Find the length of each zigzag path and put your answer in the box of the same color.



Label the dots.

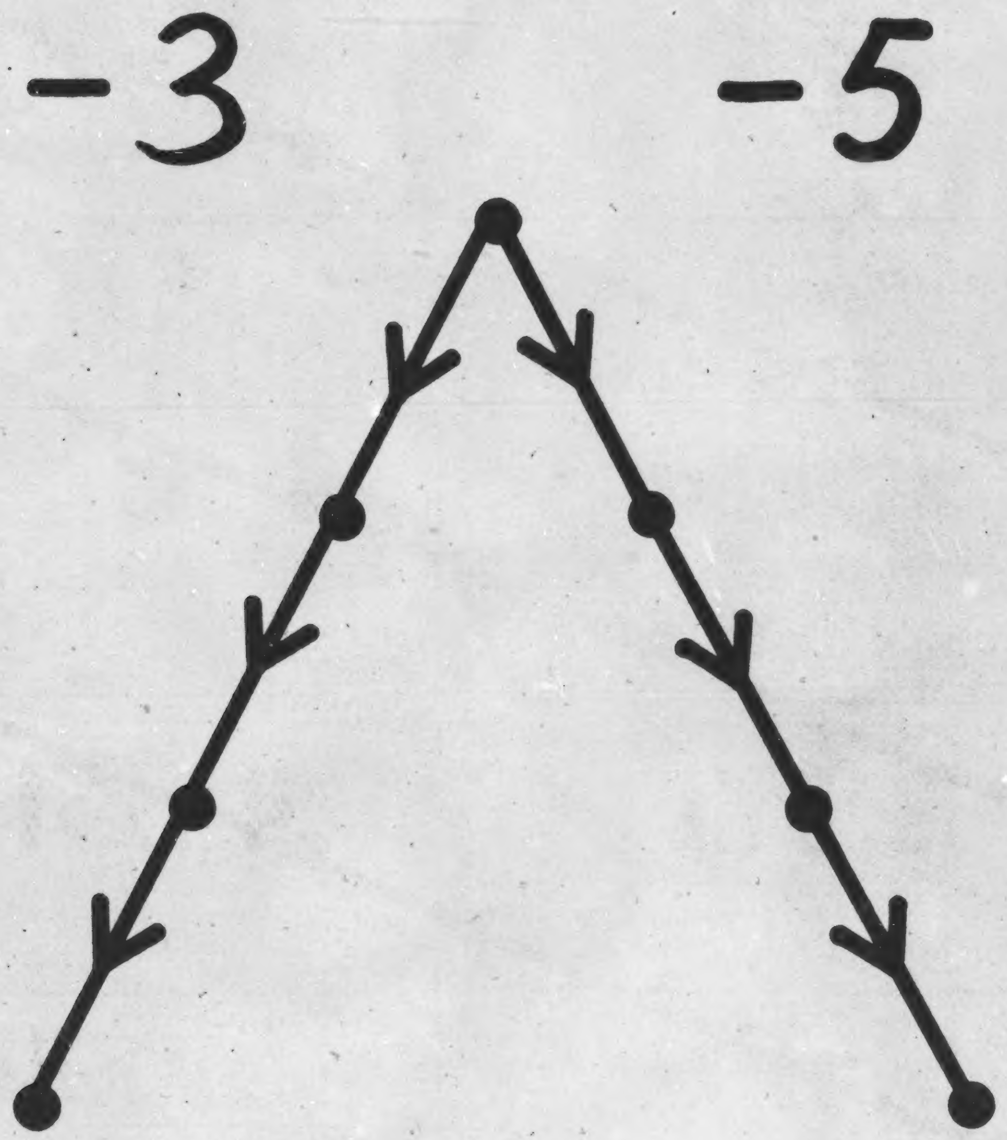

3x
1
2
3
4
5
6
7
8
9
10

Complete.

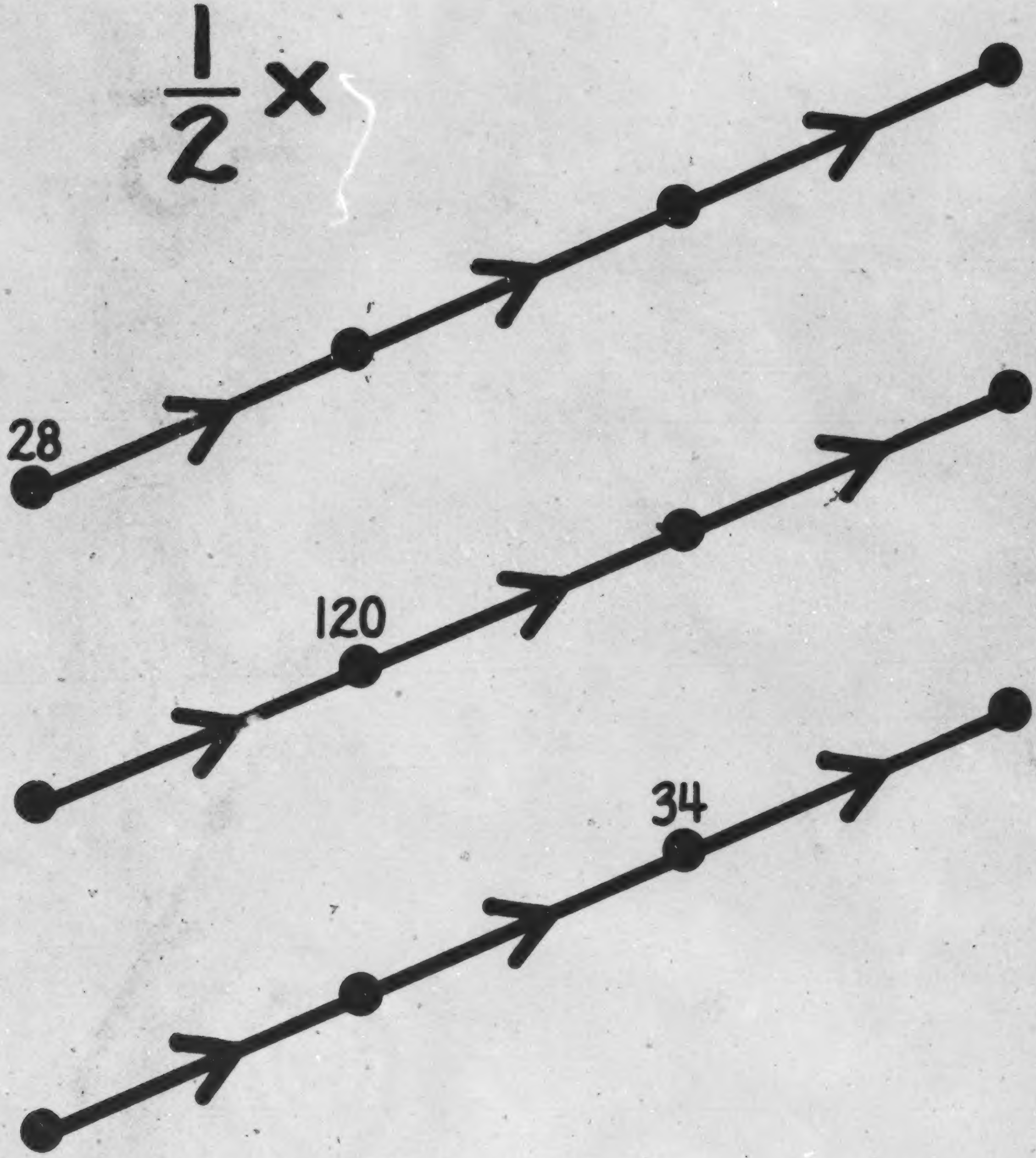
$$\begin{array}{r} 48 \\ +\quad\; \\ \hline 92 \end{array} \qquad \begin{array}{r} 175 \\ +\qquad \\ \hline 190 \end{array}$$

$$\begin{array}{r} 2{,}371 \\ +\qquad\quad \\ \hline 5{,}928 \end{array} \qquad \begin{array}{r} 4{,}351 \\ +\qquad\quad \\ \hline 5{,}000 \end{array}$$

10 is the smallest number in this arrow picture.
Where is 10? Who are the other numbers?
Label the dots.



Label the dots.

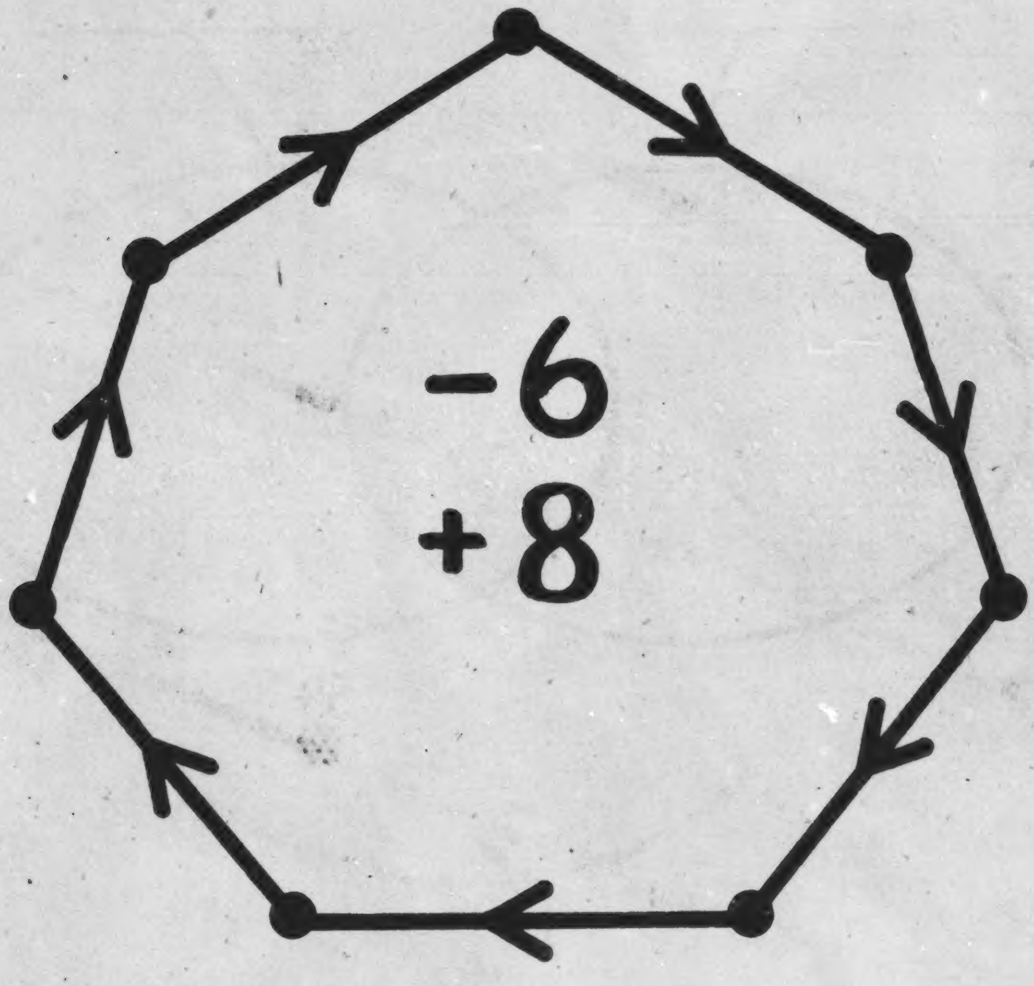


$\frac{1}{2}$x
28
120
34

48 is the smallest number in the arrow picture.

Where is 48? Who are the other numbers?

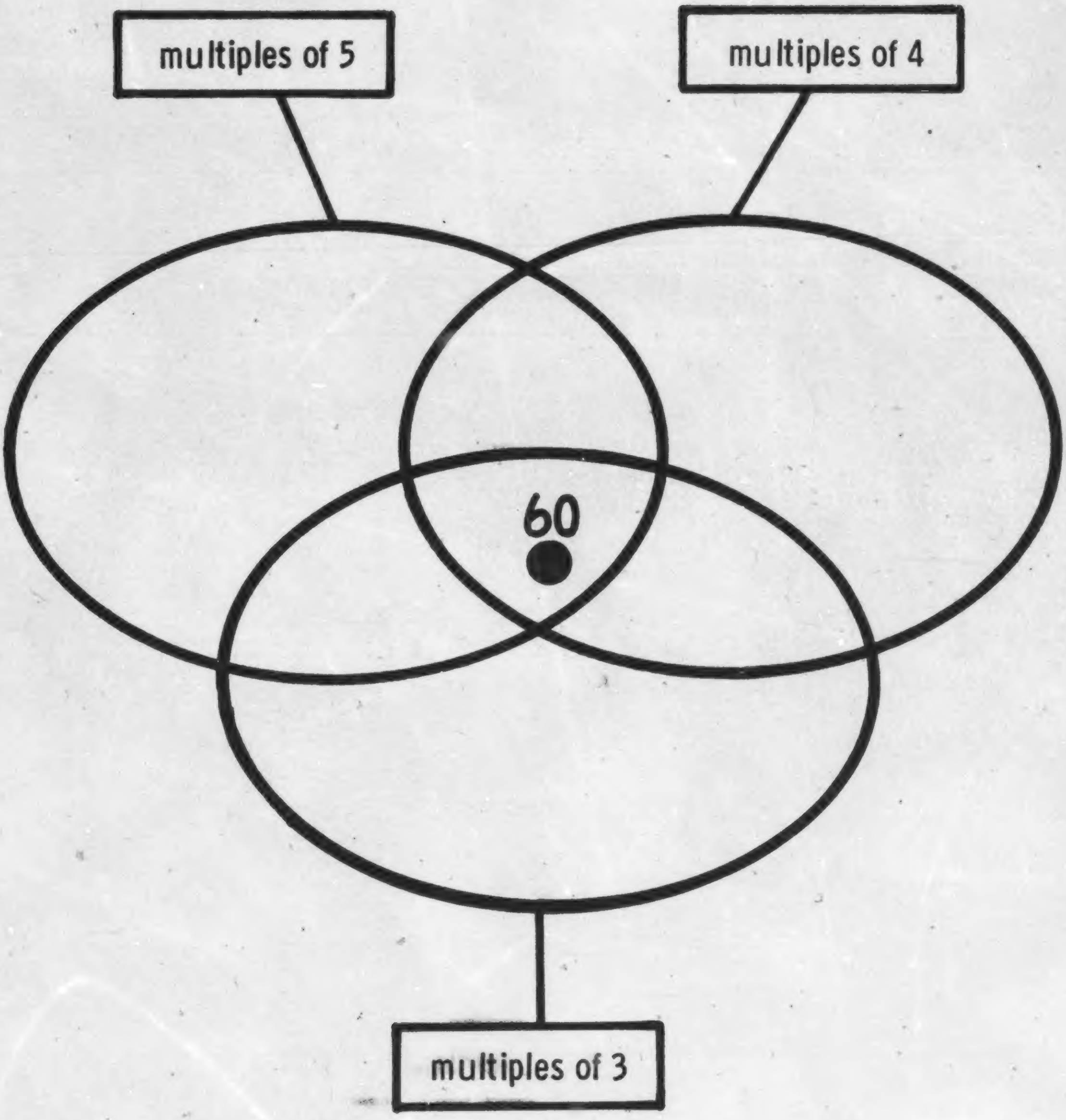
Label the dots.



Put these numbers in the string picture.

55 56 57 58 59 60 61 62 63 64 65

One is done for you.


multiples of 5
multiples of 4
60
multiples of 3

The CSMP Library

MATH STORY-WORKBOOKS

3-42201

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The CSMP Library

MATH STORY-WORKBOOKS

Current List

Ages 8-11

SUMMER SCHOOL - 0'S DISCOVERY
ROLLERSKATING 37
TO PICTURE
A SHORT STORY ABOUT 2 FRIENDS
A SHORT STORY ABOUT 3 FRIENDS
THE ISLAND OF TAM-TAM
THE TALKATIVE NUMBERS

Ages 9-14

SUMMER CAMP
HALLOWEEN PUZZLES
1,000'S DREAM
A STRANGE COUNTRY
NOT TOO CLOSE
WHO ARE WE?
CLINTON STREET
A BOOK ABOUT ME
SEVEN SECRET NUMBERS
SHUNDA'S NEWSSTAND

A series of story-workbooks providing fanciful excursions in the colorful world of mathematics for all young people, their teachers and their parents, actively involving them in the acquisition of new mathematical insights.

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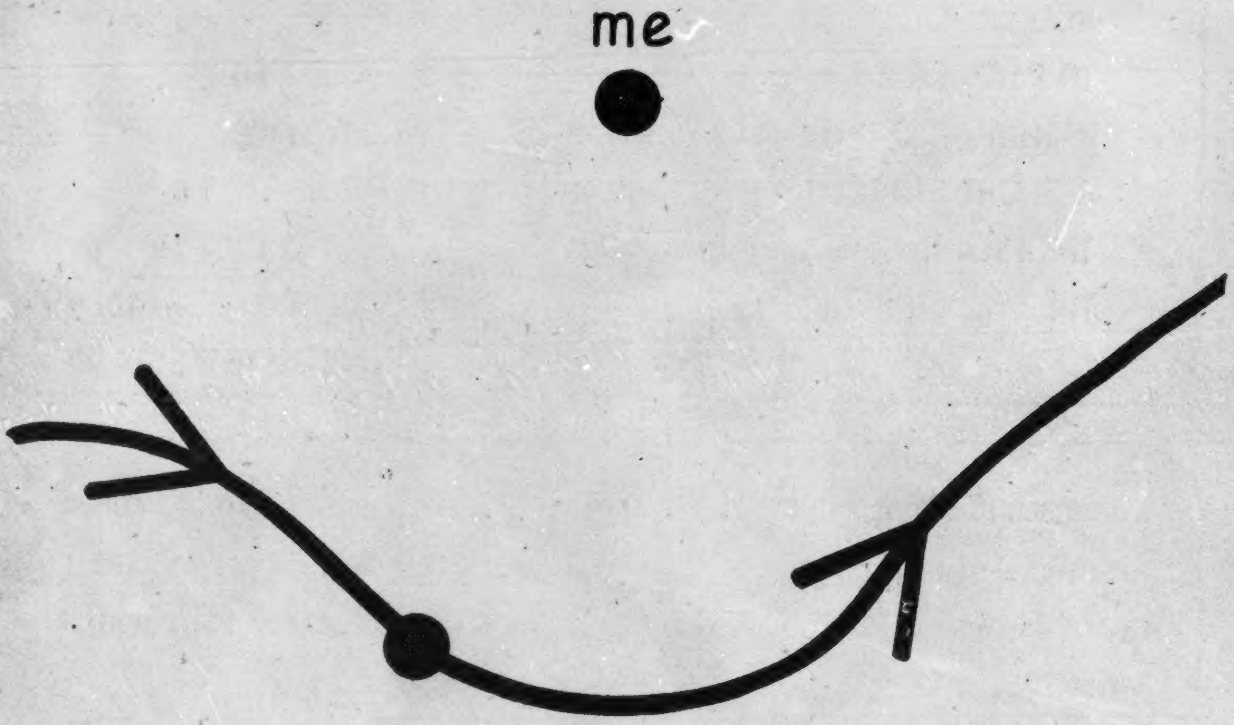
In this story-workbook, the number 37 has a very active day followed by a restless night. During the day, 37 rollerskates with the other whole numbers. From an adult point of view, their games provide a setting in which:

- to introduce congruence classes of whole numbers and, hence, modular arithmetic;
- to give practice in the use of some elementary numerical functions;
- to observe number patterns;
- to solve open sentences.

That night 37's sleep is disturbed by a sequence of dreams, all of which involve 37's position on the Minicomputer. Among other interesting problems provoked by these dreams, 37 is faced with some combinatorial questions involving how to sleep on the Minicomputer using only a specified number of checkers.

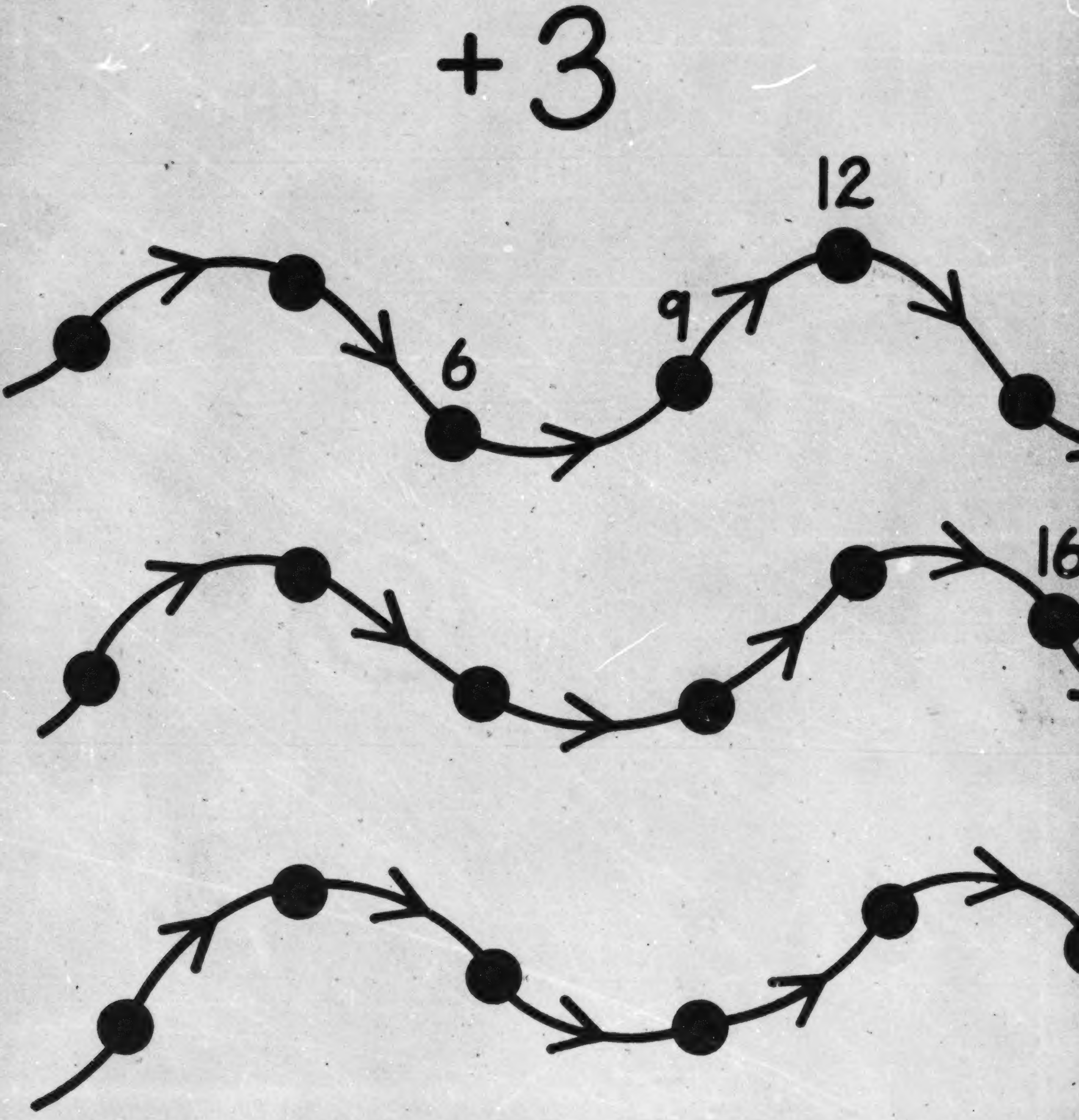
On each page the readers are actively involved in the development of the story as they answer questions, draw arrows, label dots, and draw or cross out checkers. The story line, the use of nonverbal mathematical languages, and the readers' participation combine to insure a rich mathematical experience.

I met 37 rollerskating in the street. We shouted "hello" to each other.



Very soon, 37 disappeared around the corner.

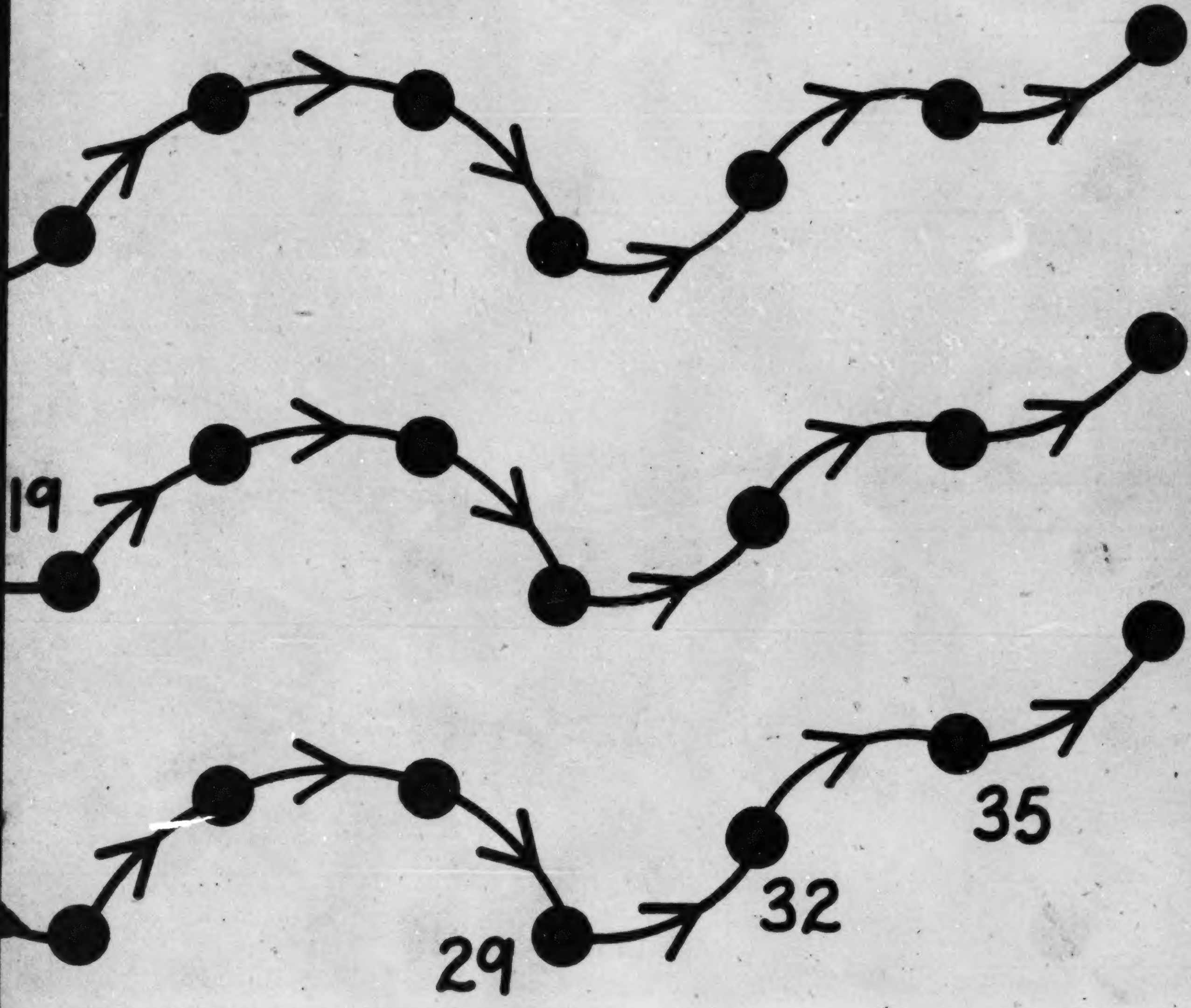
Some minutes later, 37 came by again. This time 37 was rollerskating with some friends. They were skating in three rows.



Do you see 37 in these arrow roads?

Point to the dot for 37 and then write "37" near it.

Write the names of 37's friends near their dots.

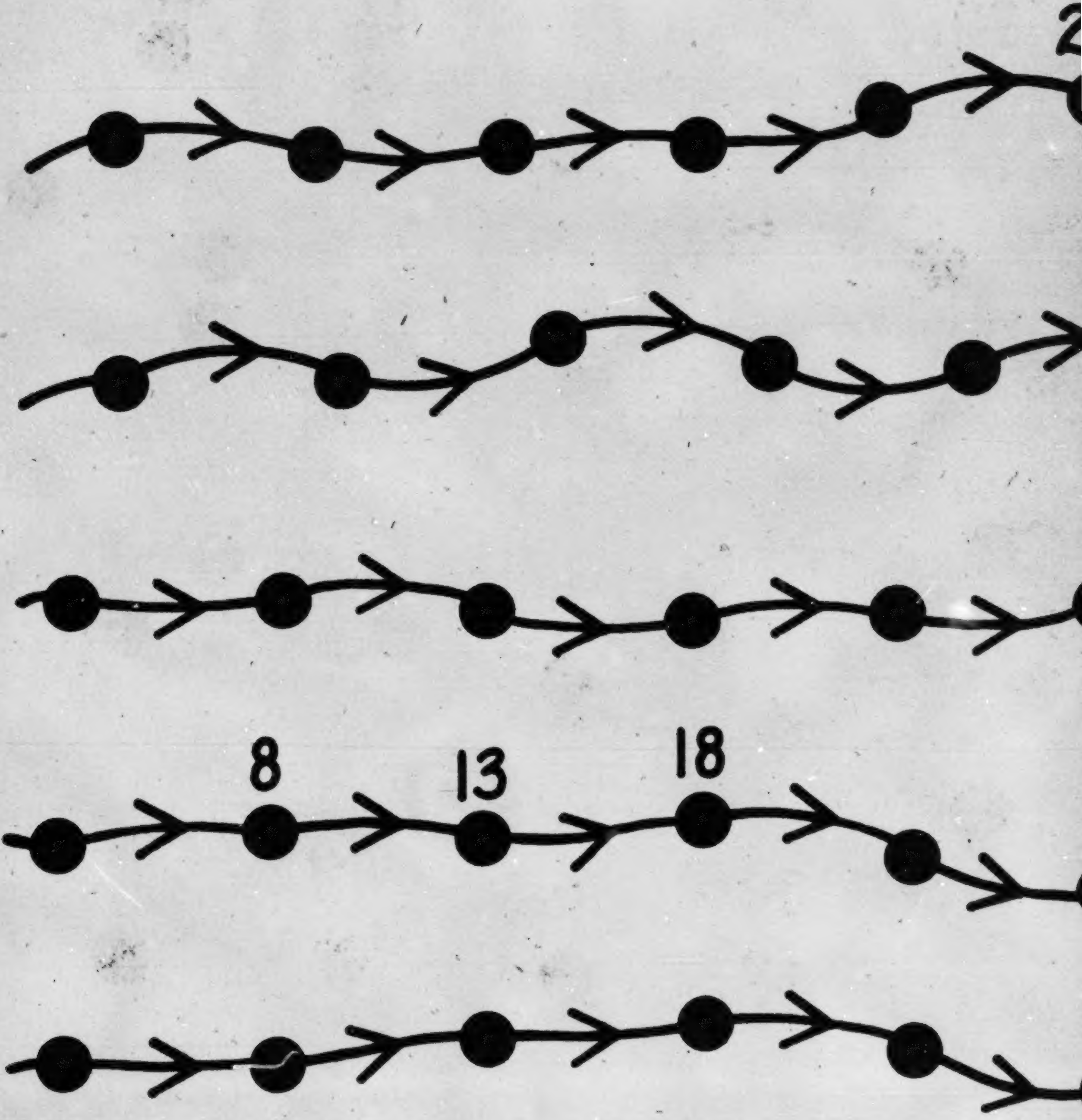


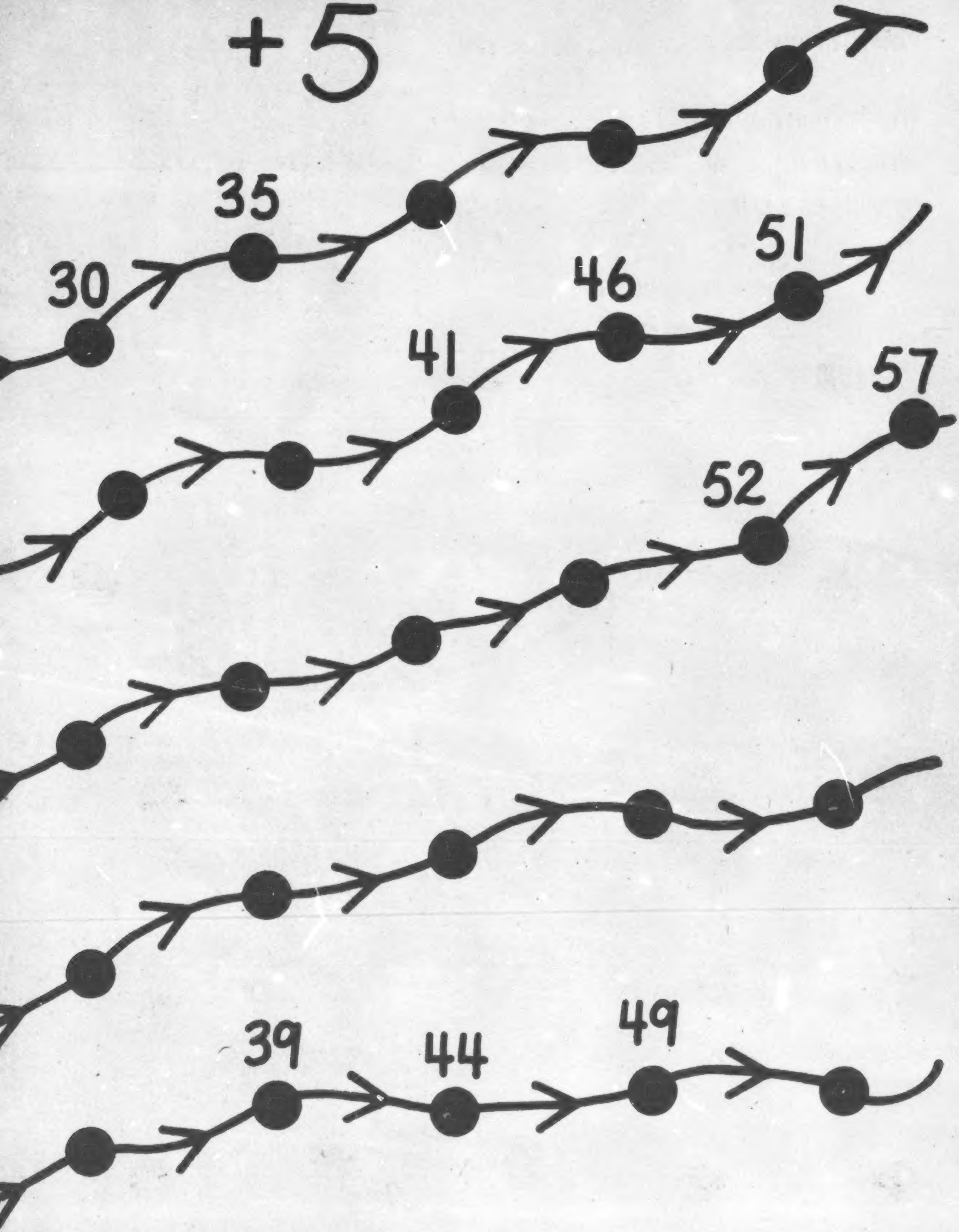
Now the numbers are skating in five rows.

In which arrow road is 37 rollerskating?

Write the names of 37 and the other numbers near their dots.

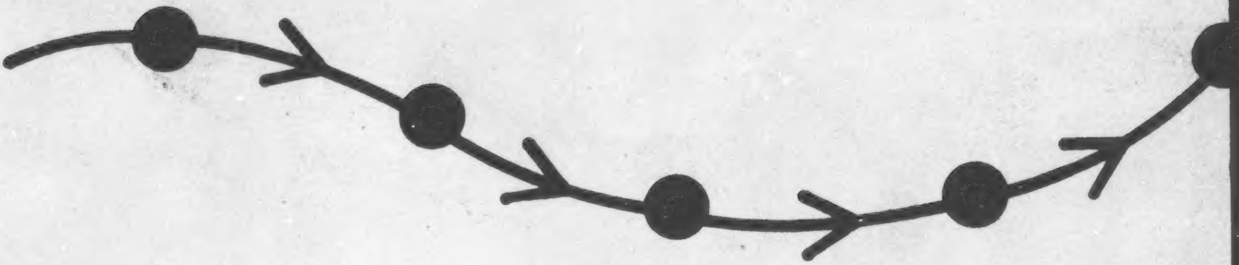
Do you see a pattern?




+5

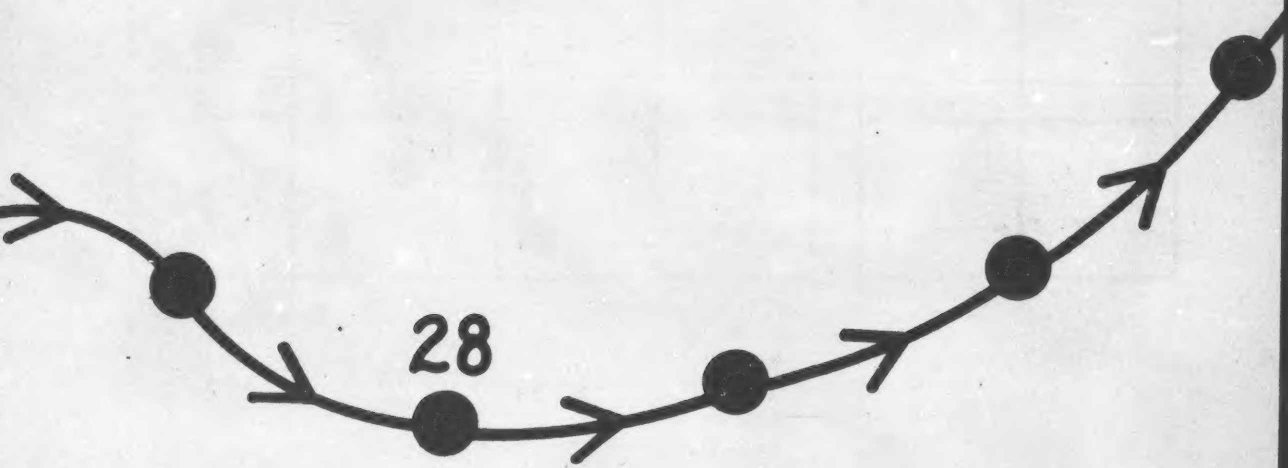
The number friends are in a new rollerskating show that they call "+4".

+4

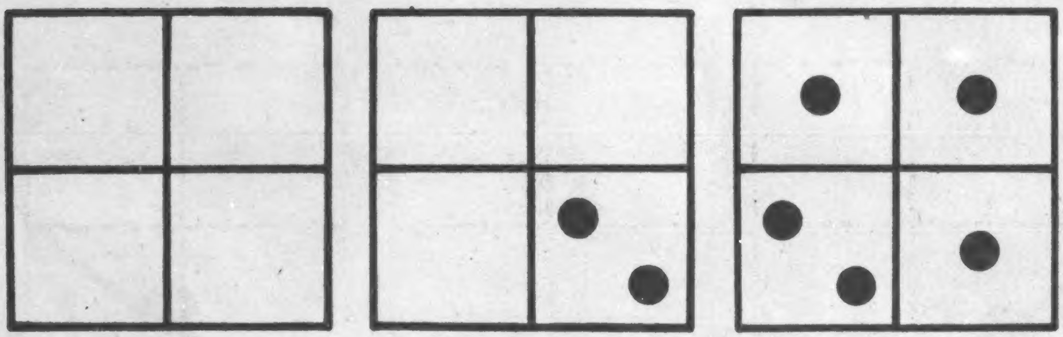


They are skating in four rows but only one arrow road is drawn for you.
Is 37 in the same arrow road as 28?

Draw the three missing arrow roads. 37 should be in one of them.
Make a big dot for 37.
Write the names of the numbers near their dots.

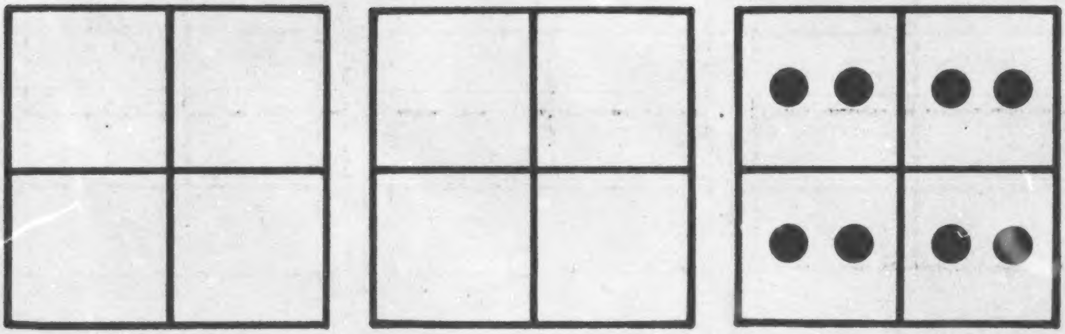


37 was very tired at the end of this busy day and fell asleep on the Minicomputer. Do you recognize 37?



Write a number story to show how you see 37 on the Minicomputer.

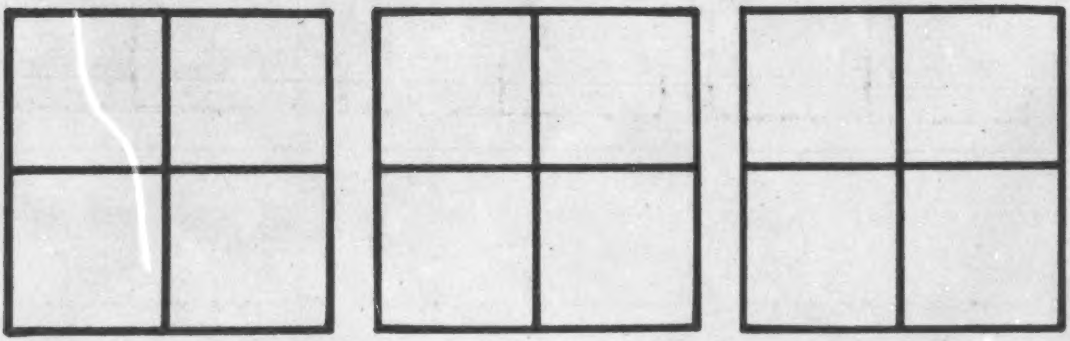
During the night, 37 had a dream and fell off the Minicomputer. 37 was half-asleep and had trouble getting back on the Minicomputer. Some checkers are missing. Can you draw them?



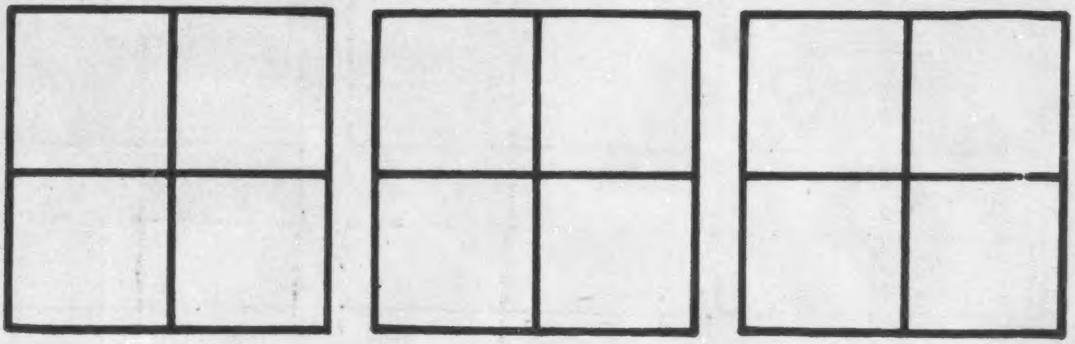
Many solutions are possible.

Later, 37 dreamed about sleeping on the Minicomputer with ten checkers. Do you think this is possible?

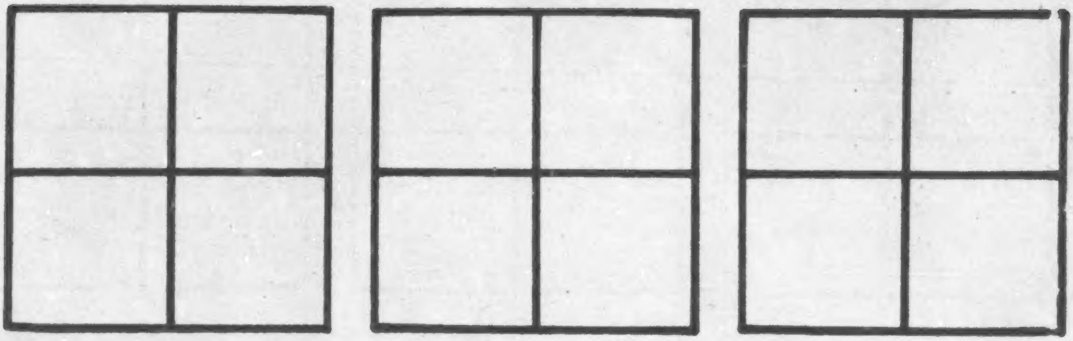
Can you show 37 with ten checkers?



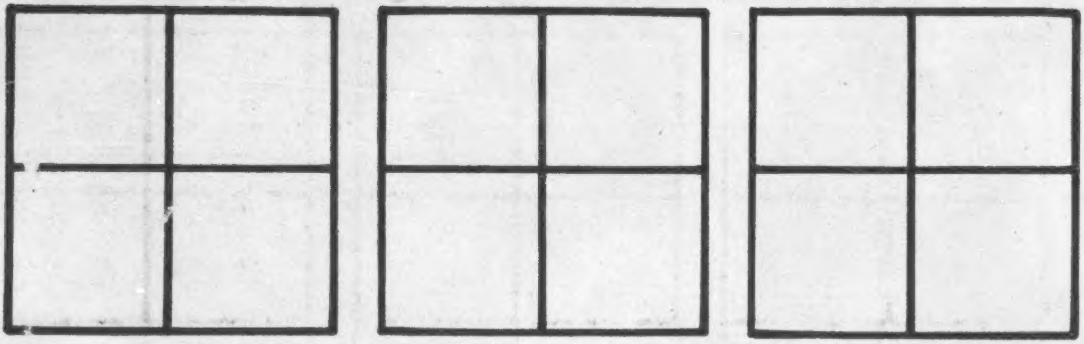
Can you show 37 with ten checkers in another way?



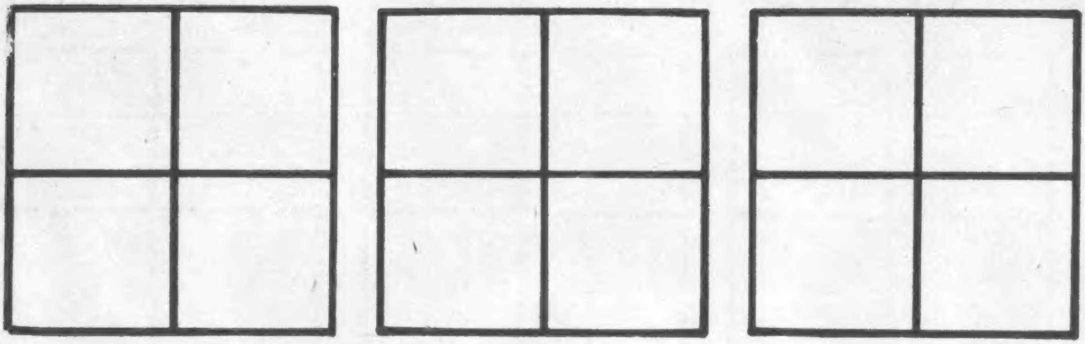
. . . in still another way?



Put 37 on this Minicomputer using as many checkers as possible.

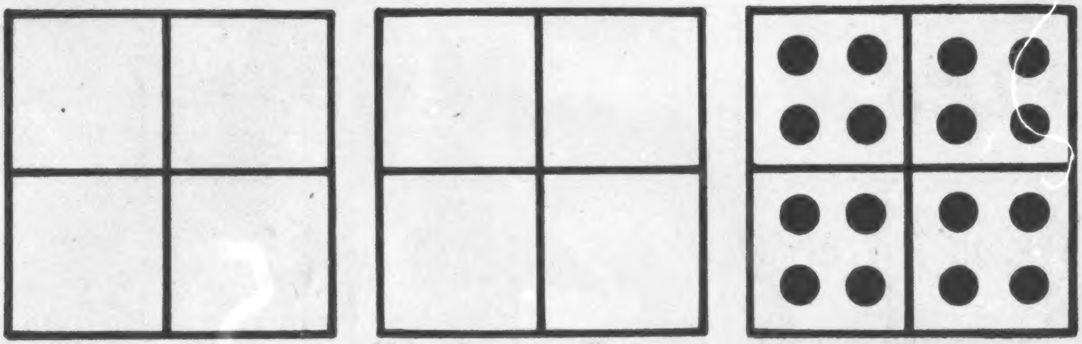


Put 37 on this Minicomputer using as few checkers as possible.



Be careful! You can show 37 with less than five checkers.

The number 37 had a nightmare. 37 dreamed of being on the Minicomputer in this way.



"This is not me!" cried 37. "There are too many checkers: Help me take some of them away."

Cross off the extra checkers and show 37 sleeping peacefully again.
Write a number story to show that you have left 37 on the Minicomputer.

This is the end of the story of the number 37, who is proud to sign this book in many different ways.

$40 - 3$

$(2 \times 10) + 17$

$(5 \times 7) + 2$

$50 - 13$

$26 + 11$

$2 + 5 + 6 + 7 + 8 + 9$

Invent some other signatures for 37 and write them below.

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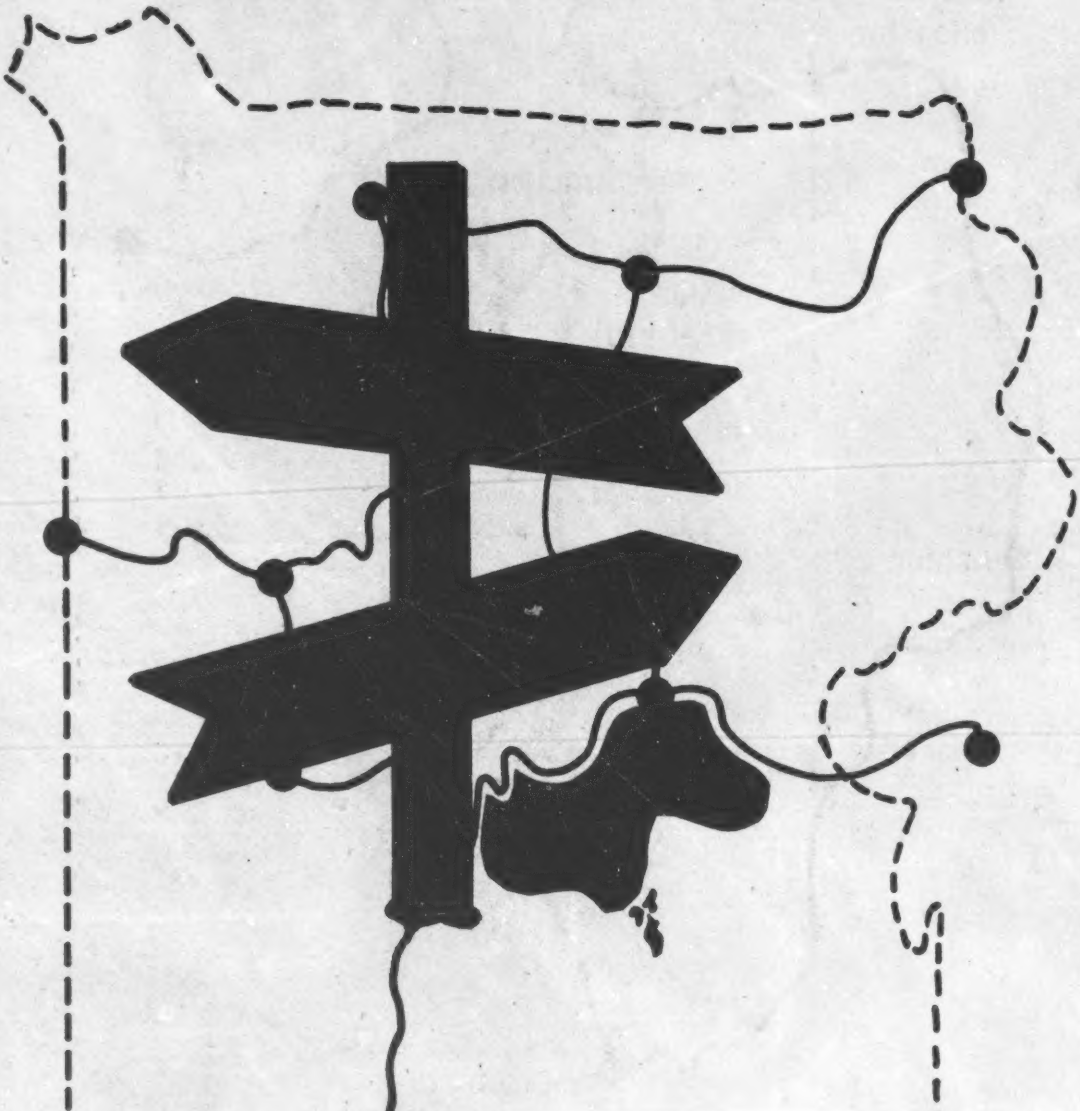
Name ______________________________

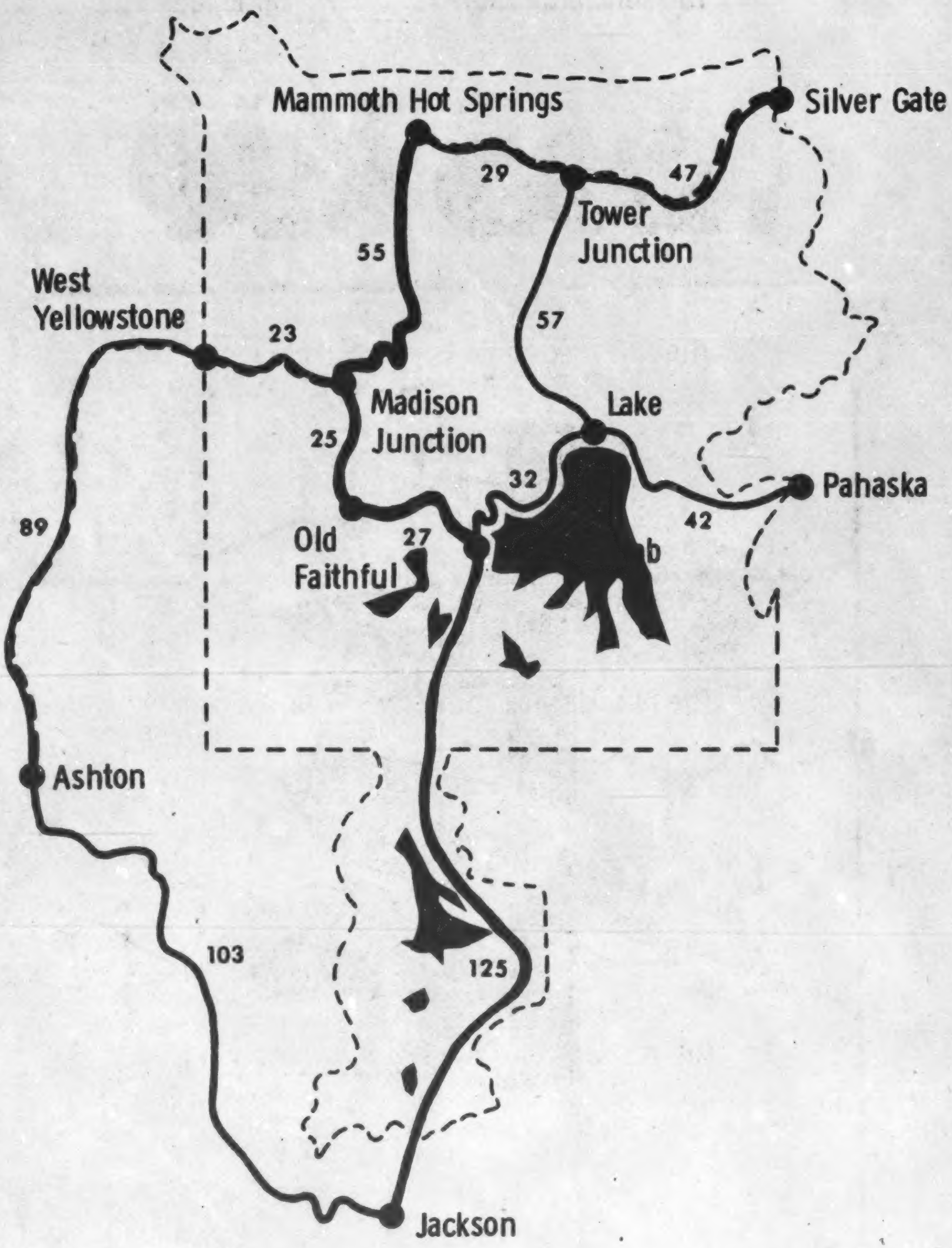
3-42101 SE

ROAD MAP



271

MAY 16 1980

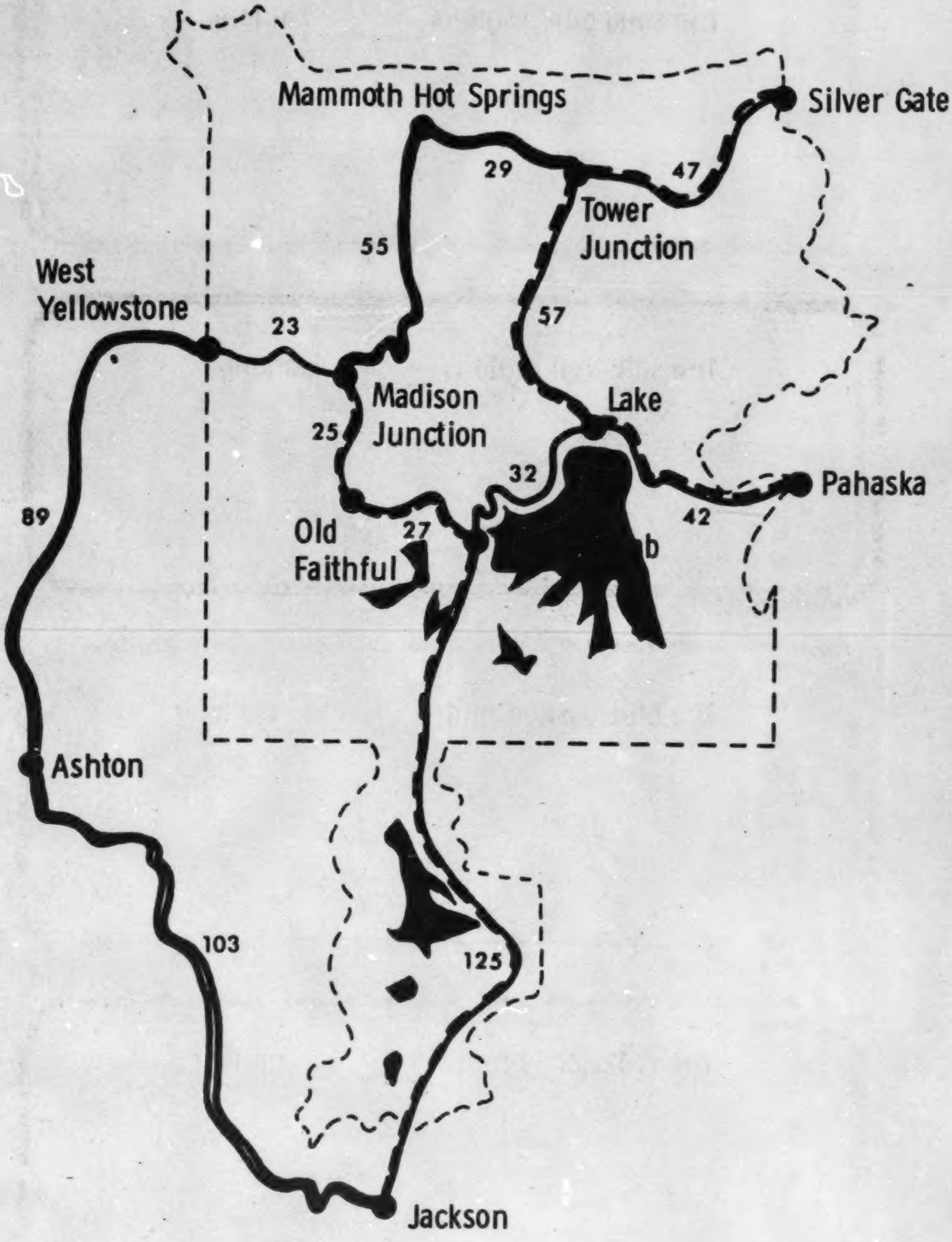

Mammoth Hot Springs
Silver Gate
29
47
Tower Junction
55
West Yellowstone
57
23
Madison Junction
Lake
25
32
Pahaska
42
89
Old Faithful
27
b
Ashton
103
125
Jackson

The solid blue route is _______km long.

The solid red route is _______km long.

The blue dashed route is _______km long.

The red dashed route is _______km long.

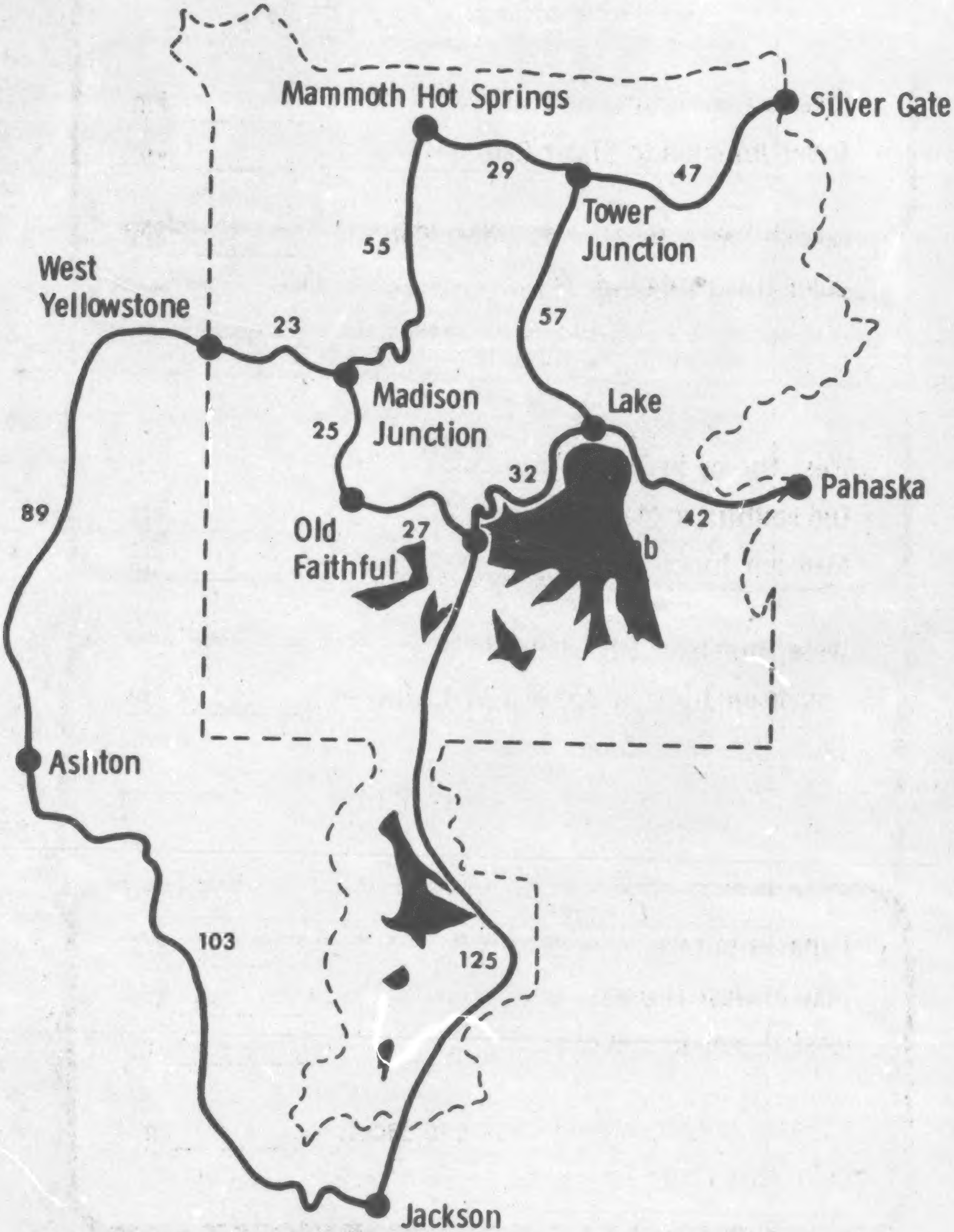

Mammoth Hot Springs
Silver Gate
29
47
Tower Junction
55
West Yellowstone
23
57
Madison Junction
Lake
25
32
Pahaska
42
89
Old Faithful
27
b
Ashton
103
125
Jackson

The solid blue route is ______km long.

The solid red route is ______km long.

The blue dashed route is ______km long.

The red dashed route is ______km long.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103
125
Jackson

the shortest route between these places.

Lake to Tower Junction: __________km
Tower Junction to Silver Gate: __________km

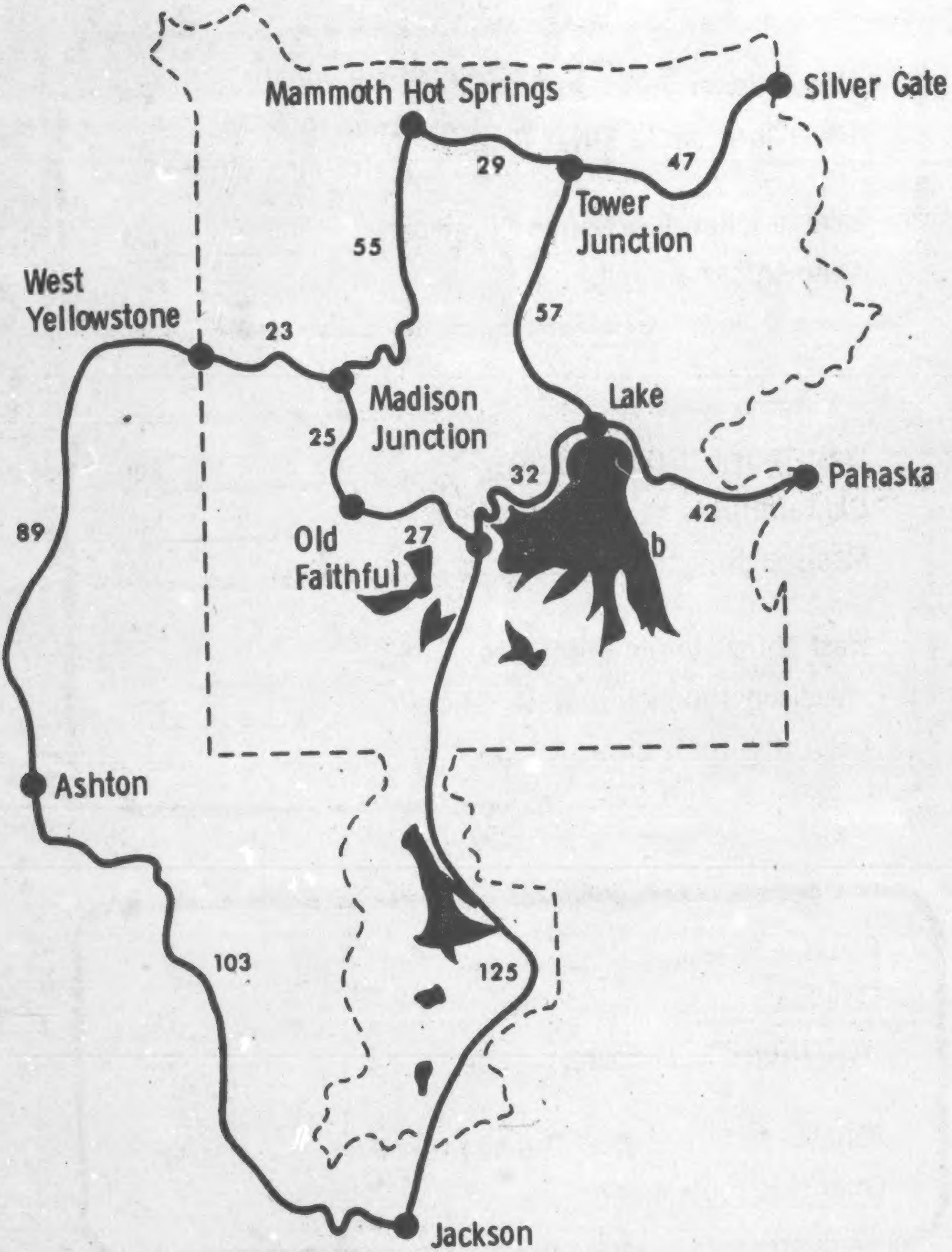
Lake to Tower Junction to Silver Gate: __________km
Color this route red.

West Thumb to Old Faithful: __________km
Old Faithful to Madison Junction: __________km
Madison Junction to West Yellowstone: __________km

West Thumb to Old Faithful to
Madison Junction to West Yellowstone: __________km
Color this route blue.

Pahaska to Lake: __________km
Lake to West Thumb: __________km
West Thumb to Jackson: __________km

Pahaska to Lake to West Thumb to Jackson: __________km
Color this route green.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b
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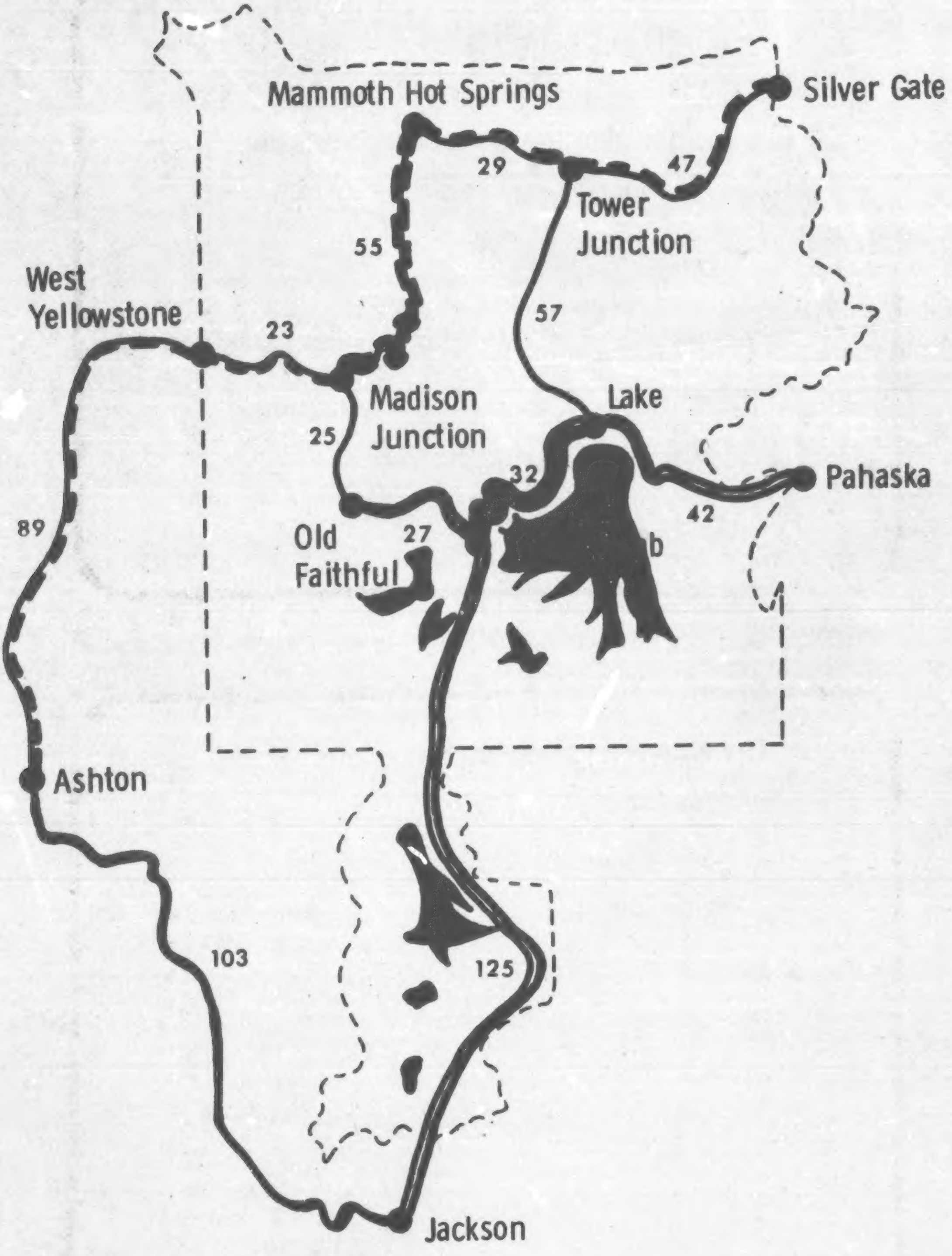
Start at Old Faithful
Plan a trip which goes to exactly three other places. Color your route red.
How long is this trip?______km

Plan a trip from Mammoth Hot Springs to West Thumb.
Color your route blue.
How long is this trip?______km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Pahaska
Old Faithful
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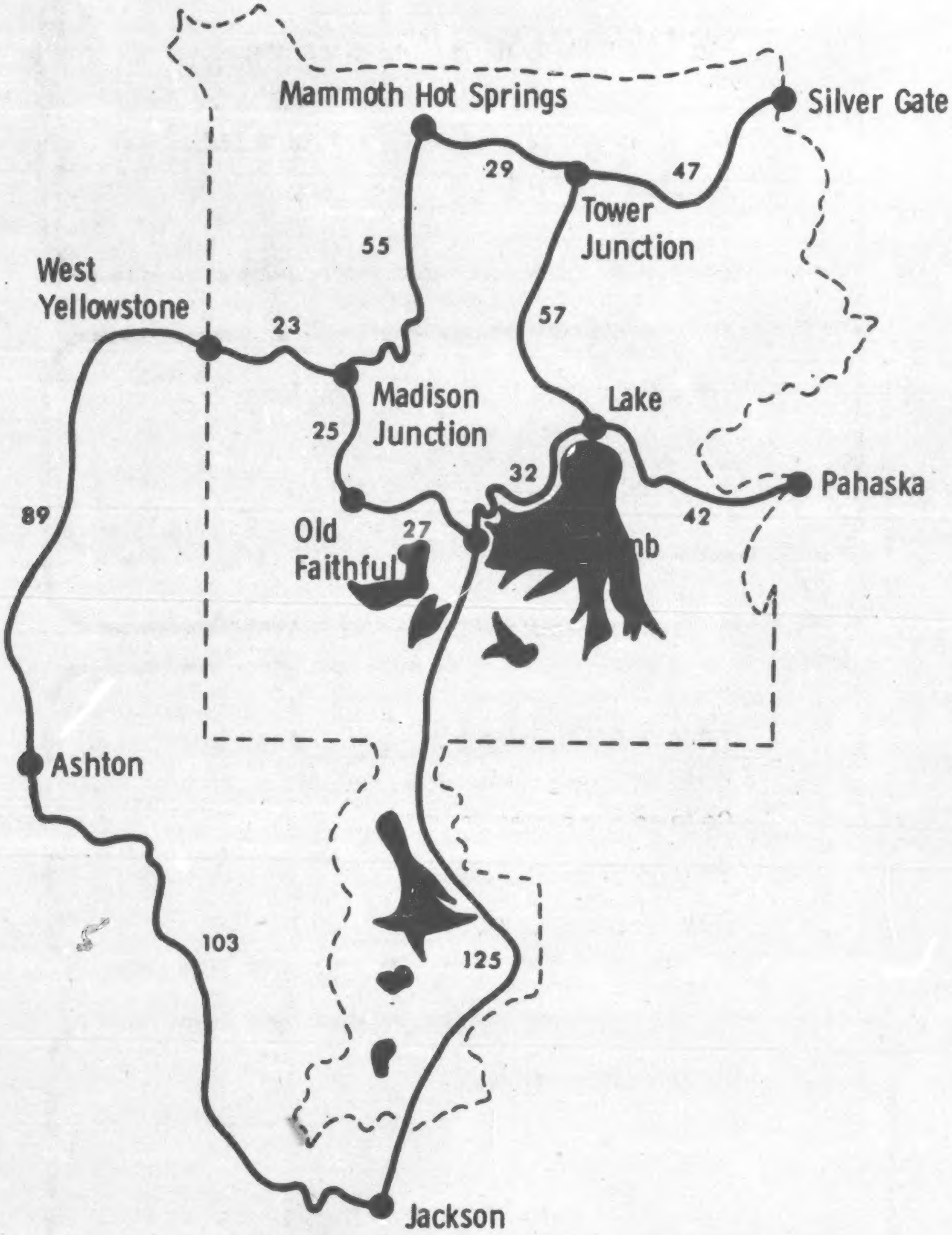
b
Ashton
103
125
Jackson

The solid blue route is ______km long.

The solid red route is ______km long.

The blue dashed route is ______km long.

The red dashed route is ________km long.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Pahaska
Old
Faithful
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42
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Ashton
103
125
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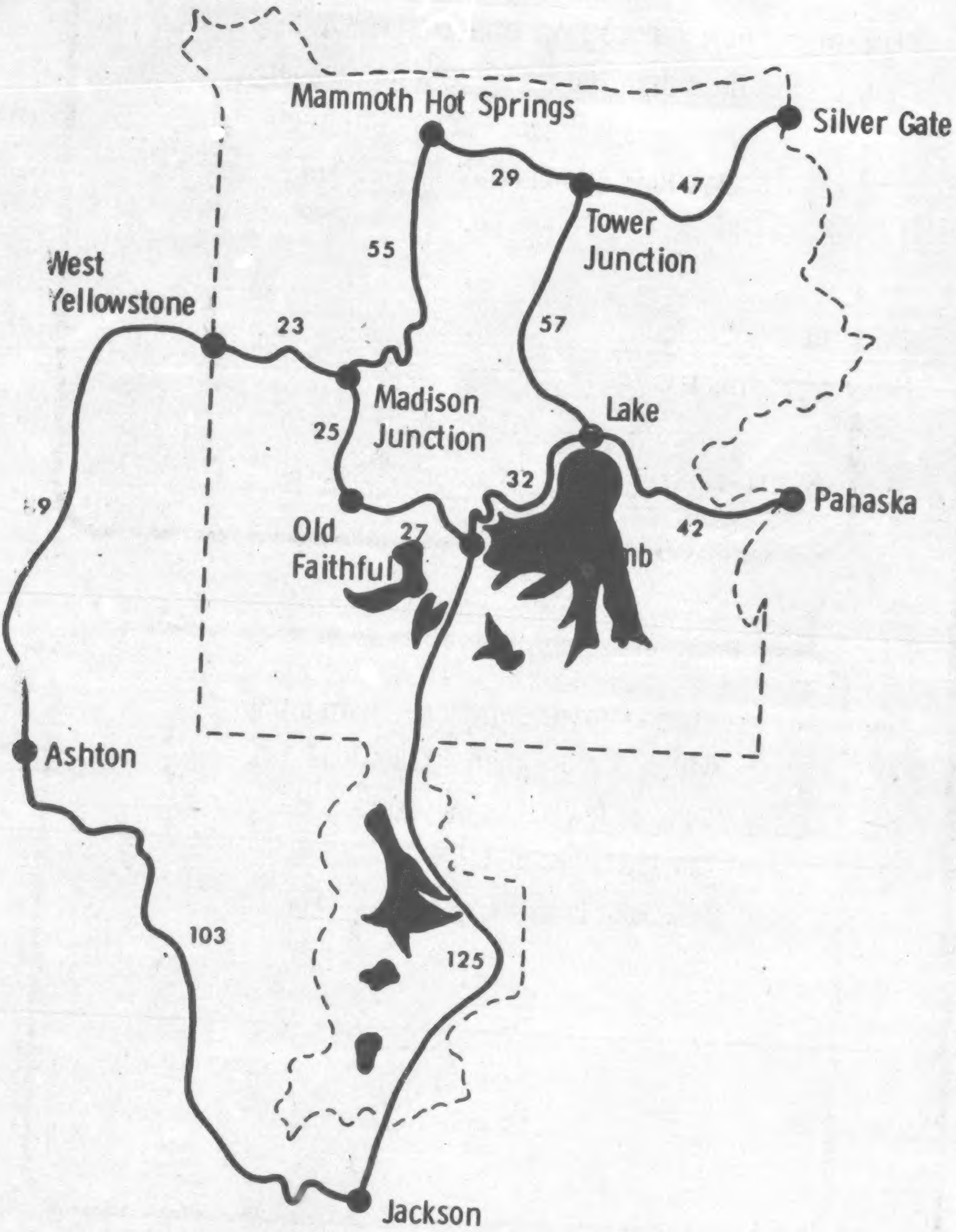
Start at Lake. Plan a trip which is less than 200 km long. Go to as many places as you can. Color your route red.

How long is this trip? ______km

Start at Tower Junction. Plan a trip which is more than 400 km long. Go to as few places as you can. Color your route blue.

How long is this trip? ______km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Pahaska
42
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Old Faithful
27
Ashton
103
125
Jackson

Plan three different trips from Mammoth Hot Springs to Jackson. Color each route a different color.

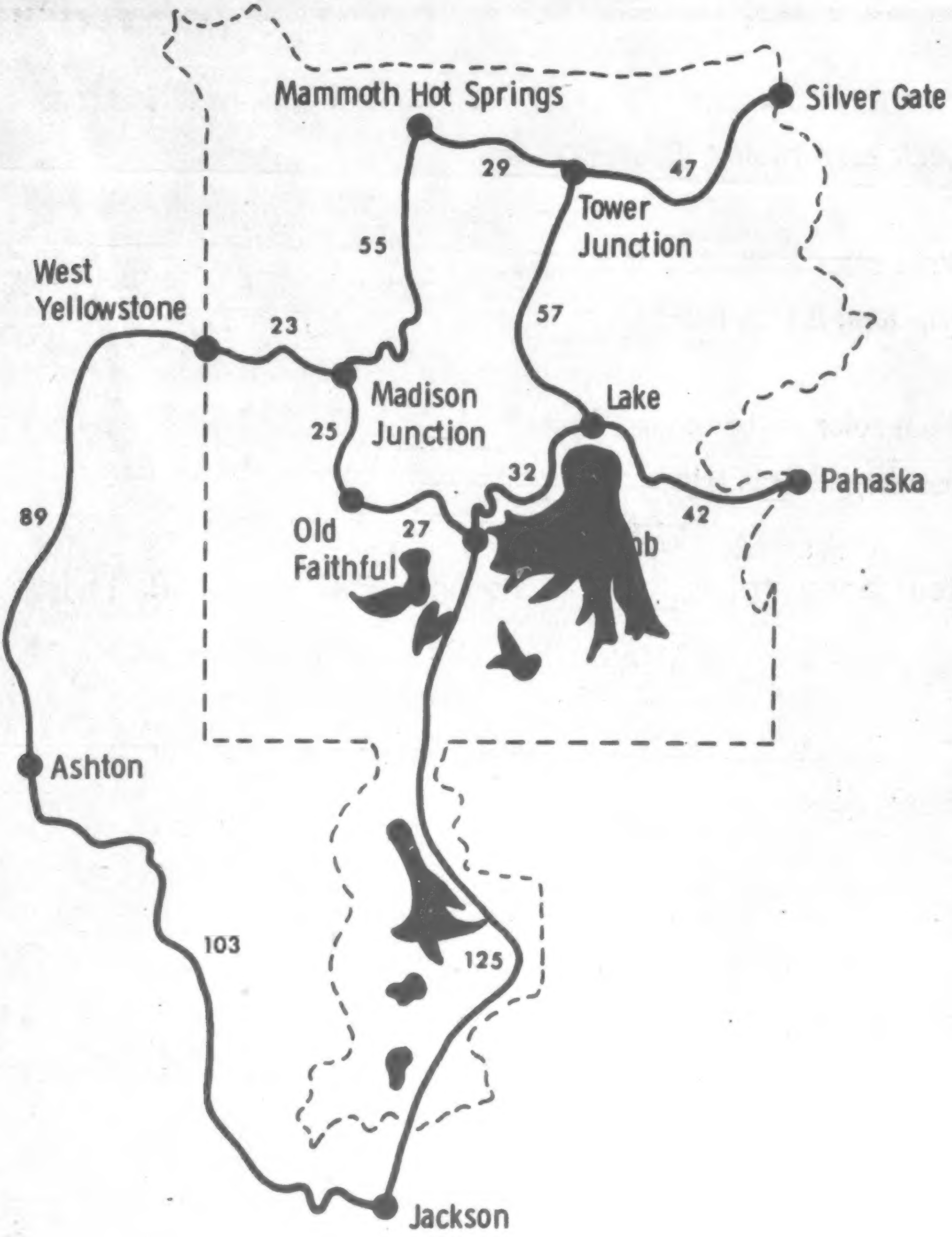
What color is the shortest route? ________

How long is this trip?________km

What color is the longest route?________

How long is this trip?________km

Your longest trip is ________km longer than your shortest trip.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ob
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Ashton
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125
Jackson

Plan a very long trip which starts at Old Faithful, goes to at least six other places, and then returns to Old Faithful.

Color your route red.

How long is this trip?________km